THE

SOUTHERN AGRICULTURIST.

FEBRUARY, 1836.

PART I.

ORIGINAL COMMUNICATIONS.

Agriculture of Italy.

How far, between the soil and climate of Lombardy or Tuscany, and that of our own low-country, there may, Mr. Editor, be such a conformity as will permit the adoption among us of the modes and objects of cultivation pursued in that fine country, I am far too little skilled in these things to be able to determine. The general facts, however, certainly indicate the possibility of much advantageous adaptation or adoption amongst us of the admirable system, which has been long nurturing itself in that country, and has made it the best cultivated, as it is naturally one of the most fertile, parts of the earth.

Of the Italian agriculture in general, I am not acquainted with any account so good as that given in the travels of *Chateauvieux.** Simondt has made some interesting remarks upon it; and some scattered particulars may be collected from *Cadell's* Journey and *Forsyth's* Travels.—Such of your readers as posses *Loudon's* Encyclopedia of Agriculture, may find in it much that relates to the same subject. Chateauvieux's, as I have said, is far the best

* *Lettres ecrites d'Italie*, en 1812 et 13, par Fredric Lullen Chateauvieux, *Geneva and Paris*, 1820. There is a translation by Dr. Rigby, Norwich, England, 1819, 8vo. See also, Edinburgh Review for March, 1817.

† *Travels in Italy.* Of Tuscan agriculture, there is a particular history, by *Sismondi*—his *Tableau de l'Agriculture Toscane*, to which I shall have occasion, by and by to refer.

and most detailed account that we have. But it is, both in a foreign tongue and almost unheard of by the majority of your readers. I trust, therefore, that I shall be offering them something not unacceptable, in sending you, by way of analysis and translation, such passages from it as seem to me interesting.

It is well, in this land of ours—as yet so recent, that civilization and toil have scarcely any where placed out of view the forest and the wilderness—to consider such a picture as the following, of what time and art have accomplised, in more fortunate countries.

"No where (says he,) is the strong authority of man over the creation more strikingly seen, than in this ancient Ausonia. Each age of civilization seems to have brought to it, its offering or stamped upon it, its trace. The fields, bordered with ancient elms, are covered with the festoons of the vine, which seems as if still planted for the feasts of Bacchus. Later, the olive tree was brought from Greece or Asia; and its ever green foliage has covered barren hills with tufted orchards, which the seasons wither not. In other places, the divided waters of a river have been made to form a thousand rills. Meanwhile, time has unpeopled the Roman plains and transformed their groves into forests and their fields into deserts. On all sides. art has vanquished nature, and taken her place. She has seemed to have reserved to herself nothing but those volcanoes, of which she defends the approach by fiery rivers, that devastate every thing around them, as if to repel the laborious skill of man, and force him to respect her, in these her last retreats."*

He proceeds to divide Italy into three regions, distinguished by the several systems of cultivation they practice. Each of these is further marked by a difference of climate, of productions, or of rural manners.

"The *first* of these regions begins towards the Alps of Suza and of Mount Canis, and extends to the shores of the Adriatic. It embraces the entire plain of Lombardy, divided, by the course of the Po, into two nearly equal portions. The fertility of the soil, in this rich plain, gives it the most varied productions, succeeding each other without interruption; and the skilful mixture of crops, which has come to be practised here, has procured the region the name of *the country of culture by rotation.*

* Page 12.

"The *second* of these regions stretches itself out along the southern declivities of the Appenines, from the frontiers of Provence to the borders of Calabria. I shall call it the olive region, or that of the *Canaanite culture.* It occupies only heights and declivities. This oriental sort of cultivation is carried up the sides of mountains, in steps or stages, by a series of terrasses, skilfully sustained on walls of turf. They are likewise covered with fruit trees of many sorts."

The *third* region he calls that of Malaria, or of the *Patriarchal culture.* It extends along the Mediterranean, from Pisa to Terracina, and comprises all the plains which spread between the sea and the first chain of the Appenines. This region, shorn, by an infectious atmosphere, of its ancient prosperity, is now abandoned to pasturage alone; the great herds of cattle, which graze it, forming the only wealth of their possessors.

"The first of these agricultural regions (continues our author) extends from the foot of the Alps to that of the Appenine, over that great water-abandoned plain, which begins at the passes of Suza, and terminates only with the eastern limit of Italy. This vast valley may be called the garden of Europe, and is, beyond doubt, the portion of it which nature has favoured the most.

"Its alluvial soil, which is not less deep than rich, is nearly every where of the exactest possible level. It is only as you approach the mountains that banks of pebbles are found.* The whole plain is of a black earth, of the greatest fertility upon it, the summits of the mountains which overhang all Lombardy, pour down a prodigious number of water-courses, which art has not yet found the means perfectly to tame, but which it has largely subdued, by spreading them for the purpose of irrigation, through a multitude of canals: so that there is, indeed, scarcely a farm or a meadow, which is without its resource of a reservoir or canal.

"This wealth of irrigation offers itself under a serene sky, and is assisted, in the production of all the phenomena of a vigorous vegetation, by the action of a southern sun.

"Natural advantages as signal as these have, during many centuries, accumulated, in Lombardy, an immense

* *Bones de galet*—literally *bonches*; places slightly raised.

population, and, with this, its consequences, such as the bringing close to each other of towns and consequently of markets; the excellence of roads, every where uniting the cities with the country; the tillage—lands themselves subdivided into an infinite number of little demesnes, in the centre of each of which, stands the farm-house from which it is cultivated. The very ground itself is distributed with the greatest art, so that there may be in its working, the utmost possible economy of space and time. The fields are marked out* by plantations of fruit trees of all sorts, mixed with Mulberry-trees, poplars and oaks: and, in order that these last may not bear a barren shade, they serve for props to the vine; whose tendrils, shooting up, on all sides, cover them, like a dome, and hang over in festoons."

He goes on to speak of the beautiful feature, which these numerous plantations† form in Italian cultivation. So closely (he says) do they border the ways, that the eye of the passenger cannot pierce them. They continually interrupt the horizon, which varies at every step, as you advance. "This continual succession of pictures, which always offers or suggests to the imagination something new; the brightness of this perpetual verdure, the numerous dwellings, uniting always with convenience a sort of elegance: their fields, whose shades bring I know not what idea of sylvan rudeness, while their cultivation bespeaks the wealthiest economy and skill; these, all together, offer at once a contrast and a harmony such as no other country presents in any thing of a like degree."

"Such (he afterwards continues) are the champaigns which Lombardy offers with a just complacency to the art of husbandry: an art there simple in the extreme, because brought to great perfection, and because correct rural practices have there become general and a sort of habit among the cultivators. Abundant population and varied production have there of course led to that sub-division of farms, which happens in every country of high fertility, and whose cultivation demands much of that minute attention which nothing less actively vigilant than *the interest of the family can bestow.* Accordingly, there

* *Encadres*—set in a frame.

† I use the word in its English agricultural meaning—*a place planted with trees.*

are very few farms, in all Lombardy, of more than sixty *arpens*;* and few, on the other hand, of less than ten."

In Lombardy, the long accumulation of capital, has placed the entire landed property of the country in the hands of the upper classes, and of the inhabitants of the towns. There is scarcely a peasant to be found, who is his own landlord. They are all *Mitayars*—that is, cultivators for one half the produce. Leases at a fixed rent are scarcely known. Such is Chateauvieux's report.—Hence, says he, though nature seems to have designed Lombardy for *a large culture* country, its social institutions have rendered a real *small culture* one. ("*Pays de grande culture*," and "*Pays de petite culture*" are his terms, which I know not how better to translate.)

To give a better idea of the economy of the Lombard farms, he afterwards describes the domain of Santenas, situated, about 10 miles from Turin, beyond the hills that border the Po. It is near Montcallier, once a royal residence, but now deserted and in decay. At Santenas, Chateauvieux passed some days, in observing their rural practices; and he describes them, as those of Piedmont in general.

"The domain is of considerable extent: divided into four farms, placed along the border of a canal, which, at pleasure, retains or distributes its waters. Its embankments are shaded by lines of Alders, Poplars and other trees, whose enormous size seems intended to protect the estate from storms. Beneath them spring up numberless shrubs and flowers, which, as I walked among them, in May, were just expanding into bloom. The dew, here more abundant than in France, covered them with drops, and bent with its weight, their fragrant heads. In the neighbouring meadow, they were making hay; and its odour, mixing itself with that of roses and orange blossoms, added a fresh delight to the verdue of this charming scene.

"The Chateau is at one end of the estate. A lawn, watered by the canal and tufted with groups of trees and shrubs, lies before it. This part forms the reserve of the proprietor. At its other end lies the first of the farm houses, whose roofs are seen rising from the amidst of the fine orchard, that borders the meadow. The manor

* 48,000 square feet, French. It is nearly 1¼ acres, English.

at once forms the object of a walk, and an agreeable point of view.

"This farm, like all those of Lombardy, presents an extent and an excellence of buildings, such as is scarcely seen any where else in Europe. They are of red brick, solid as well as elegant; but in a style where the rustic character is always duly preserved.

"The buildings extend along the sides of a great square court. In the centre of one of these sides rise a pavillion of two stories, of which the excellent proportions produce a very agreeable effect. The ground-floor lodges the family and stores the provisions: the upper one is the granary. Two wings of the pavillion form the rest of this side of the court. They are only two stories high, and contain two stables. the one for oxen, the other for cows; both of which communicate internally with the centre building. They are 12 feet high, and vaulted and plastered within, to protect the cattle from dust. Nothing can be neater than these stables; where the cattle, plunged to their knees in rice litter, attest, by their gentleness, the care which is taken of them.

"A continuous portico of about 20 to 24 feet in depth, and 15 or 16 in height, occupies the three remaining sides of the square. Its roof, within, is supported by columns, at the same distance from each other as from the wall; so that the portico, from pillar to pillar, is divided into so many exact squares.

"Under the great space, covered by this portico, are deposited the straw, the forage, and all the products of the farm; together with all the carts and other implements of husbandry. Half the court is paved: the rest is an area for treading out the grains. The manure is heaped outside the court; so that its cleanliness is complete; and thus, with its symetrical columns, it has an aspect of regularity, convenience, and well-ordered care, such as our dirty and ill-arranged farms are far from even enabling us to conceive." (*Note*, that this is said in a country where rural economy has made a progress, as yet hardly begun among ourselves.)

Such, he goes on to say, is, with the difference only of dimensions, the general model of the Lombard farm-houses. It is that what gives the greatest room, with the least building; the best security and arrangement to the

crop; and is at once the most economical, and the safest from fire. To execute it, a great quantity of bricks is necessary: but each landholder makes them for himself, preparing the materials, as he can find time to provide them. The rest of the work is done for him, by regular contractors; and the solidity of the whole mode of structure is such that the necessity of renewing it recurs but rarely.

"The outer are walls every where covered with vines. Their course grape gives, indeed, a bad vine; but to the farmer, habit renders it palatable. The pavillion communicates, by an outer door, with a garden, which is separated by a hedge, from the plough-lands, and is adorned with fig-trees, shrubs and flowers. From the porticos, large gates open to roads leading to the different quarters of the farm, and forming its divisions.

"The lands which border the canal are devoted to meadows, watered by overflows; and of which the vegetation is so rapid, as to afford three grass-crops in the year. Its grasses are the *Avena elatior*,* the meadow fox-tail,† ray-grass, plantam,‡ and the different sorts of clover.§ The meadow is usually one-quarter of the farm: the other three parst are for the plough. The latter are divided by rows of trees, (generally mulberries, though sometimes maple or cherry) each of which supports its vine, and thus adds a new product, without any loss of space.

"This farm occupies about 60 *arpens*.‖ Crossing it, you come to the second, and from it you come to the third. Both are precisely such as the first, with the proprietor's reserve, and some wood plantations, they form one of the finest estates in Piedmont."

Upon each of these farms lives a family of Metayers; who often retain it, through several generations; the lease being handed down from father to son, under the same conditions, without deeds or registris. The Cheptel (or stock of cattle) belongs to the proprietor: but the farmer has its profits, paying a fixed rent, which is valued as half the nett produce of the meadow-land—about 40 francs per arpent. But for the clover crop, he pays no

* Oat-grass, I believe, † Le Paturia. ‡ Plantia lanceole. § Trefle.

‖ 75 acres.

rent. The other crops, corn, maize, wine, hemp, silk, &c. are divided, in kind, before the steward.

If the above, Mr. Editor, should seem, to judgments on which I rely more than on my own, worthy to be continued. I will endeavour to resume it in your next.

E. W. J.

The Pride of India as a Manure, being Replies to Letters of the Editor on the subject.

Mr. Editor,—With pleasure, I comply with your request to furnish you with the result of my experiments on the "Pride of India as a Manure." I have tried it as such for three or four years back, and can, with confidence, speak, as to its great usefulness. My mode of collecting it is somewhat slovenly. I suffer the leaves and berries of the tree to drop off in the fall, when I gather them and throw them as a litter in my cowpen. I find that the cattle eat the leaves with great appetite. This manure when well laid upon the land and listed in, drives away all kinds of worms and insects. I have tried it on a small piece of my cotton land for *four* years, and while, at all times my other plants were cut down and destroyed by insects, I never knew one plant growing upon the Pride of India manure to be touched. I consider the tree an invaluable one, and have accordingly planted it all around my dwelling and negro houses. I should, perhaps, have said, that in collecting this manure, I mix the leaves and berries together. The latter contain a great deal of rich oil, which may be discovered by mashing one of them upon the floor. If this hasty letter can in any way serve you, you can use it as you think best.

Respectfully, yours,

A SEA-ISLANDER.

Letter from a friend in Barnwell.

Mr. Editor,—You ask me to say what has been the result of my experiment on the Pride of India as a manure. I am no writer, and must beg you to excuse me if I express myself very imperfectly in reference to this matter. I have never tried the Pride of India upon any thing, but corn, and some plants in my vegetable garden. I shall tell you how I have tried it with my corn and what

was my success. I always trim my trees, as your correspondent of the January Number advises, and then collect the leaves and berries from the limbs thus lopped off. These I put together into my manure pen to rot—which they will pretty effectually do before spring. Wherever this manure has been put, I have never had any trouble with grubs; my corn has never been cut down by them, and I believe that you can get no insect whatever to live wherever it can be smelt. As an evidence of this, when I wish to get rid of bugs in my bedsteads, I make a decoction of the roots or leaves of this tree, and by saturating the same with the mixture, I totally destroy or drive them away. I have frequently had the cabbages in my garden dreadfully eaten by worms—by throwing the leaves of this tree over them, I have invariably totally destroyed them. I have never seen the caterpillar on my place; but I hesitate not in saying, that wherever they are to be met with, the Pride of India leaves will destroy them. The late Mr. Reynolds of St. John's, Colleton, once told me, that one year his whole plantation, on Wadmalaw, was infested with these insects, with the exception of a small spot. This spot was near where several Pride of India trees grew, and he never found the traces of an insect near the cotton. If I lived on the island, and planted cotton, I would, ere this, manure as much as possible. I consider it in richness, superior to any cotton-seed ever used. There is some little trouble in using the seed for manure, inasmuch as it gives some inconvenience by its springing up with the cotton-seed; but this it does after the cotton has arrived at a pretty good height, and it can be as easily cut down, as the sprouts from cotton-seed manure. The corn which I manured with it, produced me 28 bushels to the acre; before, the same land, had been yielding only 15 and 20 bushels, and this, too, with the ordinary cowpen manure. F.

Barnwell District, (S. C.)

Plan for an Agricultural Society.

Maytenton, Newberry District, (S. C.) January 23, 1836.

Mr. Editor,—In your periodical for this month, I read an article on the establishment of Agricultural Societies,

and with but a slight exception, I entirely concur, in the organization suggested by "A Reader," nor should I presume to propose any alteration was there not now in progress a plan consonant with the general objects of yours, but with additional ulterior advantages.

In the back country we have commenced organizing Agricultural Societies, and hope that not only you, Mr. Editor, but also your contributors, will co-operate in our endeavour to render them successful. I shall mention you the plan of the Society to which I belong.

The Society has a President and Secretary, the latter of whom acts as Treasurer; the whole society is arranged in separate committees, with their respective provinces allotted to them.

One Committee to experiment on the composition and application of manure, as required by different soils and adapations to different productions, with a full detail of the culture, seasons, &c.; and another Committee exclu ely to experiment upon cotton, when to top it, and whether material at all.

Others exclusively to corn and all small grain, &c.

Others to rearing of each kind of stock.

Each member to pay annually into the Treasury two dollars, which will accumulate a sufficiency to award any member making most corn, cotton, small grain, &c. to a single acre, a considerable premium, and also for the average crop. Also, for the finest one and three year's old blooded colts, a premium, as well as common blooded colts, mule colts, and all other stock. Awards are adjudged by the Committees and respectively presented at their an annual meetings for their exhibitions.

This systematic arrangement has resulted in the wiser culture of our lands, and in the better regulation of our slaves.

We contemplate, however, a farther extension of usefulness; in which, also, I hope, all your intelligent readers will feel interested. After we have organized a number of these Societies and conformed them to a regular and systematic plan, we will send from each society annually, delegates to meet in Columbia, about the first of September, the earliest time that we can report with certainty on the prospect of our annual growing crop. Some of the consequences of this meeting, as to its

effect upon our markets, are referred to in the contribution of "A Reader" alluded to.

Finally, would it not be advisable to call upon the Legislature, not only as suggested by the Society Committee for Learning, but also that it blend with the Professorship of Chemistry and Geology, also Agriculture in the South-Carolina College. This would tend not only to develope immediate good results with their present plan, but would elicit more talent and better material for continued research.

As the project, however, is in its infancy, and rendered peculiarly discouraging from the general inactivity of our planters on the snbject, you have the means through your valuable paper, either to mature or devise some alteration more conducive to the general good.

I have made these remarks in a hasty moment, if necessary, I will write again, when more at leisure.

I. B. D.

We thank our correspondent for the inferest he has taken in our journal, and desire that our friends generally would send us all the views and information upon this subject, within their power. In our next number, we contemplate commencing the first of a series of essays, presenting this matter to the consideration of our legislators. We wish to bring about a complete organization of our Agricultural Societies, to urge the establishment of Agricultural Professorships on the part of our law makers; and to claim for our planters and farmers that protection to their industry and enterprize, which their condition and importance in this community demand.—*Editor.*

Mode of Cultivation in the Up-country, with Remarks by the EDITOR.

OUR correspondent in a portion of his letter, which we omit, complains that our journal is not sufficiently devoted to the Agricultural interest of our upper districts. We regret that such, heretofore, has been too much the case; but we hope that the like error has been provided against in our present arrangement. All that we ask, is that our farmers and planters throughout the country, will make known their wants to us. We shall be always ready to

relieve them, either by our own information, or by the contributions of those more experienced than ourselves.

As regards the inefficient, we may say murderous system of Agriculture, carried on in our upper districts, and of which our correspondent so justly complains, we ourselves have been witnesses. Such a thing as manuring land there, is seldom, if ever, thought of. Some tell you that laying manure on the land, scorches it up; others, that it is two troublesome—while the greater portion affirm that it is more profitable to cut down and plant on *new land*, than to work and fertilize the *old*. For such errors, there is absolutely not the shadow of an excuse. We know from personal observation, and in several instances from personal examination, that the rolling and mountainous regions of our State abounds in soil, which vies in natural richness, with that of any in the Northern States. All that is wanting to make it equally productive, is the application of the like industry and skill, with our Northern farmers. That such is the truth, is evident from the instance given by our correspondent of the success of a friend of his who practised a wiser system. In one part of Pendleton, about three years since, we viewed one field which had produced only fifteen bushels of corn: another field just separated from it by a fence, we were assured had yielded forty-five bushels, by the application of a little manure. On one farm we found fat horses, fat cattle, and fine looking negroes; on the other, every thing had a squalled and worned out appearance. The proprietor of the first spoke of emigrating to the West, that of the other, politely invited us to come at any time and see what improvement he was making. Now which of these two, was more to be depended upon as a good citizen and a patriot.

Will not some of our friends answer the query respecting the introduction of seed from a more Northern climate? We fully concur with our correspondent, that it would introduce great improvements into our State.—*Editor.*

"Maytonton, Newberry District, (S. C.) January 23, 1836.

"In the back country we are but little accustomed to manuring in any way; our lands have originally been very rich, and our practice is yet to cut down and

wear them out without improving the exhausted portions. We plant about ten acres of cotton to the hand, and five acres of corn, which of a good season makes us fully five bales to the hand. Now we all know, that this practice is repugnant to every item of economy; yet it is a habit, hard to abandon. I know one planter from the lower country originally, who came up here six years ago, purchased a level old plantation, and has not yet cleared the first acre. He plants five acres of cotton, and four of corn to the hand, manures it all, attends it well, has time to attend a large small grain crop, and prepare the comforts of a farm, and makes more than any of us. This fact will suggest at one consideration, many circumstances of economy in contrast. Our lands, if well manured and attended, will produce from 1000 to 2000 lbs. of cotton to the acre, and when the manure is put on land with so fine a bottom as ours, it is of permanent good.

A considerable planter, near Monticello, in Fairfield, manured four acres for ten or twelve years, with stable manure. For two years back, he has planted it in corn without additional manuring, and has made each year upwards of fifty bushels to the acre.

Besides the good that might result from an interchange of opinion respecting the clover, there are many other improvements to which your journal might attend. One is the selection of our cotton seeds. We send far south for our cotton-seed, where it is adapted to a longer climate. Is it not worthy of trial to send north, where it is adapted to a shorter season—a desideratum with us? In this particular, I know altitude and difference of soil makes a difference on the same plantation by shifting seed from the lower to higher lands, and *vice versa*.

There are improvements making in the selection of various other seed, promising most successful consequences; cotton and corn selected from one stock, in a farm, bearing very differently and much more prolific, &c. All such results presented to an intelligent community, through your periodical, cannot fail of being valuable.

Yours, &c.

A SUBSCRIBER."

Large Corn.

THROUGH the politeness of James Nicholson, Esq. of this city, we have been presented with an unusually large ear of corn, from the plantation of Kinsey Burden, Esq. of John's Island. It contains sixteen rows, and numbers *eleven hundred* full grains. The seed is the common flint, and was selected from a common stock growing among the crop-corn. The present ear, is, we believe, the third or fourth generation in descent; and is one from many others of the same size. We have not shelled and measured it, but have not the least doubt, that it is good for something over a half pint.

Mr. Burden has already distinguished himself for having brought the fine cottons to their greatest perfection by a selection of seeds. He has extended the same experiments to corn, and bids fair from the exhibition now before us, of achieving the same results. For ourselves, we can see no reason, why the same rule should not apply to corn, which applies to every other plant and to the human family. To the preservation of them in health, vigour and fecundity, change of climate, soil, and treatment are absolutely essential. If our planters would pay more attention to the selection of the various kinds of seeds used than they have hitherto done, we have not the least doubt, that the most cheering consequences would follow. EDITOR.

On the Moral Discipline and Treatment of Slaves,

Read before the Society for the Advancement of Education, at Columbia.

HAVING been added to the Committee, appointed to present a memoir on the moral discipline and treatment of slaves, in this State, I made inquiries in different parts of the country, as much as my impaired state of health permitted, and I conversed with several gentlemen for the purpose of acquiring information on the subject thus committed to my charge. The Chairman of the Committee being absent from Columbia, in a distant part of the State, I must avail myself of the permission granted us to write either jointly or severally, and I take the latter alternative as the most convenient, under existing circumstances.

It is a matter of great regret that I was unable to make my inquiries as numerous, as was desirable, and that those made have been considered very partially. Indeed, I have reason to conclude, that there are very few planters who have any thing like a regular system for either the moral or physical government of their slaves. I shall only mention the fullest and most strongly marked account given me by one of my correspondents.

He tells me that when he commenced planting, a few years since, he found the plantation which he had inherited from his father, and to which he had added very considerably, both in land and negroes, in an exceedingly disordered state; or, to use his own strong expression; "found it a wreck in every way." He found his negroes, to all appearance, devout religionists. Their practice was to congregate twice a week, besides Sunday mornings. From the inquiries he made of his overseers and neighbours, he had many reasons to believe, that no good arose from this course: but on the contrary, that all the most zealous pretenders to religion were the greatest rogues. He attended several of their meetings, and from their most absurd perversions of the scriptures, and the monstrous absurdities which they uttered, with the most sactimonious countenance, he was most fully satisfied that no morality could proceed from these meetings. He afterwards found that they committed depredations of all kinds, killing his beeves, hogs and sheep, thrashing his rice in the woods, breaking corn and grubbing his potatoes. He ascertained by the fullest and clearest proofs, that the coloured preachers were the greatest and most active thieves. He also found that among the women, those who had the most pretensions to religion, were nearly all implicated in the misdeeds. He was, therefore, induced to break up all their religious meetings, and to make examples by severe punishment on the most guilty ones. Punishment also followed any violation of his new regulations. He then resorted to a very different course, and adopted a system calculated to produce cheerfulness, and keep them in good humour as much as possible. Being determined that there should be no fault on his part, he fed and clothed them well, and induced them to occasional meetings for the purposes of merriment. He had fiddles and drums for their use, promoted dancing, and he found that by punish-

ing certainly, though moderately, all ascertained delinquencies, they became much better tempered, and certainly much more honest. He has now followed this course for some years to his full satisfaction, and I am informed by his neighbours that his plantation is one of the best regulated, and his negroes the most orderly in all that part of the country.

I shall not presume to say, whether or not this gentleman has followed the best practicable plan; but his success certainly indicates that it has some very favourable features.

If all men were enjoined to love one another and to contribute, as much as possible to the happiness of others; how much more is it the duty of men who hold such command over others, as we do our slaves. It is then indisputably our most imperious duty to treat and govern them with a view to their comfort and happiness, as is consistent with propriety, and the performance of their duties towards us. We must, therefore, insist upon their due performance of these duties; otherwise we cannot have it in our power to place them in that situation which it is desirable for both parties that they should enjoy. If one course of conduct, therefore, is shown to be injurious, either by leading the slaves into mischiefs or otherwise, it should be changed unhesitatingly. But, in doing this we should most sedulously guard against the adapting of another cause that may contain features equally injurious; and this is the great difficulty.

The system of moral discipline and management of slaves, slightly hinted at by the Chairman of the Committee, at a preceding meeting, as having been tried with some success by some gentlemen of the South, seems to conflict with the successful method adapted by my correspondent, and, without doubting the accuracy of either account, it appears to me, there is some imperfection in both. Those gentlemen at the South who have hired white persons to preach to their slaves every Sunday, teach them morality and the principles of religion, have so far done very well, and the plan, so far as it goes, is highly commendable; but it appears to me insufficient, in as much as it gives moral occupation only once a week, whereas man, particularly the ignorant, requires it oftener and of various kinds.

Innocent amusement, when under proper regulations, and when partaken of with moderation, conduce to morality and virtue. Cheerfulness is the fruitful parent of charity and good feeling towards our neighbours, as moroseness, the first born of fanaticism, is that of hatred and malice, and all uncharitableness. Negroes are naturally prone to gaiety, and I conceive it a duty to ourselves as well as to them, not to change this inclination in them, but rather to promote it by every prudent and allowable means.

Man, though in a state of ignorance, has some activity of mind as well as of body. Curb it, and you render the individual miserable. This is the reason that solitary confinement is the most severe punishment short of death. Compel the ignorant man to retire invariably to his own dwelling as soon as he has done his day's work, and you proportionably deduct from his happiness, by compelling him to brood over his miserable fate; whilst he sees others in a more fortunate condition, enjoy themselves to satiety. Allow him on the other hand, some recreation, he is contented and sees not with envy the happiness of others. There never was, perhaps, a more happy, contented, honest, religious and moral people than the peasantry of the continent of Europe. I speak more particularly of the peasantry of France before the revolution. Their habitual cheerfulness and the good feelings which it promotes, were most probably the chief cause of it. They were, most of them, very poor; but they had access to social pleasures, which gave them a love for that society where they found a diversion and relaxation from their labours, and, to love one another is the first duty towards men enjoined upon us. It also gave them gratitude towards their superiors who promoted, most judiciously, those social enjoyments. How often have I enjoyed the happiness of seeing crowds of happy people at their most innocent amusements on a Sunday evening, by day-light, after the church service was over! Then in the public square of the village, the youths of both sexes were assembled in the shade of the trees, where they danced, undoubtedly with all the innocency possible. Their parents and elders were present and enjoyed their happiness. Often have I seen the clergymen, of whose piety and eminent virtues none could doubt, pre

sent on these occasions, joining with the parents and elders in the lively, but pure conversation excited by the sympathy we all feel at witnessing the happiness of others. Is there, can there be guilt in this? No! impossible; for that which produces all the feelings of love and charity to all men, cannot be guilt.

The nature of man is alike every where, and at all times; and if those who used to follow the abominable slave trade, found it to their advantage, whenever they had an opportunity of doing so, to produce gaiety in their miserable captives, by causing them to listen to and dance at the sound of some instrument, there must be some virture in the practice; or else, in their cupidity, they never would have thought of this. They, however, thought of it, and moreover, found that it saved the lives of many of their dependent captives. Some practice somewhat similar to that which is here advocated, prevails more or less all over the world. It must, therefore, have been found useful. If, then, it is not found culpable, why should it not be more generally adapted in this country for the comfort and pleasure of our slaves? From what has been said above, there are reasons to believe, that the practice, by promoting cheerfulness and amusing occupation, the slave would become more honest and much more seldom tempted to rob and pilfer, not only his master's, but frequently his neighbour's fields.

It is not alone the advantage of obtaining a desirable object that induces the negro to steal; but rather the excitement produced by the very act of stealing. This gives more activity to his mind, and therefore, gives him more life, or rather a more thorough sentiment of his existence. Change, then, the object of his pursuits, give him innocent pleasures that may occupy his mind and may be anticipated with eagerness, and let him consider them as the reward of his good conduct, and you will have your negro honest and trustworthy; though, perhaps, not from principle. It is not easy, and may be impossible to implant principles in the minds of the ignorant; and to substitute knowledge for ignorance in a sufficient degree to be available in good, is still more difficult. Gentlemen may think it beneath their dignity to interfere in any manner whatsoever with the pleasures and amusements of their slaves. It never was thought below the dignity of the sovereign, of the legislator, or of the ma-

gistrate to direct the conduct of their subjects or citizens in every thing that may lead to their general good; and if the path that leads to it is a path of pleasantness, it is much more likely to be followed willingly, than if it were covered with thorns and briars. Nothing of this sort can be below the attention of any man. What can more exalt the character and standing of a man than to promote and spread widely happiness, not only amongst his own dependents, but also, by his good example, through his neighbourhood? Can any thing produce a more happy consciousness in a good man than the knowledge that he has by his exertions, advanced the welfare and happness of many of his fellow creatures? His conscience will tell him that he has done his duty, and the last moments of his life will be sweetened by the thought.

N. HERBEMONT.

The Nut Grass.

Mr. Editor,—For the benefit of such of your readers as are troubled with this incorrigible plague, I send you the following directions, by which its mischief may in part be prevented. The listing and bedding of lands, thus infected, should be postponed until a day or two before the seed is planted. The beds should be laid off, at the distance of five feet apart, and their base made as large as possible. By forming them thus, the grass will be longer in appearing, and when appeared, will permit of the hoe being driven deeper into the bed, without the danger of disturbing the roots of your crop plant. The chops that are made for the depository of the seed, (I mean your crop seed,) should be ten inches long, leaving as many inches distance between each chop. A bushel of seed to the acre should be planted, as many plants will perish from the severe treatment which they must necessarily receive in suppressing the grass. They must also be left thick, for a much longer time than is usual, in order that a greater shade may be thrown upon the bed, by which the grass will be slower in vegetating, and also to afford a choice of healthy plants. In attending the crop upon such lands, I have always found it best to do effectually what is to be done; half way measures will not answer here. With a view to this, I give as a days' work, a quarter, instead of a half acre. The grass is

first carefully picked from among the plants, and also from around them, as it would not be safe to venture the hoe too near, in the hands of even a negro. The hoe is next taken up, and driven into the sides of the bed, and between the hills of cotton. The worker should not stand on the side of the bed which he is working, but reach across the bed, so that the hoe may enter as perpendicularly as possible. The task thus chopped through, (for 'tis nothing more than chopping,) is by the same hand immediately hauled, and the dirt carefully thrown around the plants. I should always prefer working Nut Grass in wet weather, for then the hauling is more lasting, and the dirt, by becoming encrusted, offers greater resistance to the shooting blade of the grass. It is of doubtful expediency, whether any thing more than picking the tops of the beds, is advisable in time of drought; as whatever tends to mellow the bed, gives increased facility to the growth of the grass—the nut from which it springs being so deeply seated in the earth, as not to be affected by the want of moisture. The grass has spread with alarming rapidity over most of our best lands, and wherever it appears, it detracts thirty per cent. from their original value, as a third less can only be cultivated. Whether the plough has not done more towards the spreading of it, than the hog, is becoming a serious question, and I find in the ranks of this opinion, many who broadly assert, that the *grunting gentry*, if left to themselves, will, in time, exterminate the enemy.

If these remarks, hastily thrown together, are worthy a place in your valuable journal, you are at liberty to insert them.

BLUE HOUSE.

Chaff as a Manure for Strawberries.

AMONG the selected articles of this number will be found a very interesting essay on the various kinds of Strawberries, and the different modes of cultivating them. We wish that this most delightful fruit were more attended to. The general impression has been, that our's is not the proper climate or soil for its successful cultivation; but this is evidently an error. We have seen as fine flavoured and as large fruit of this kind, growing in our gardens, as any that we have ever met with in a more

Northern latitude. When properly attended, we know of no fruit which is more profitable. Last season, we planted a half acre of these berries. We picked from the land thus planted one bushel and a half, on an average, per day. The season for picking lasted six weeks, allowing five days to the week, was equal to thirty days. The amount picked, therefore, was forty-eight bushels for the entire season. These we readily sold at 25 cents per quart, which yielded us the aggregate sum of $360. This estimate is far from being exaggerated; on the contrary, it will appear much below the mark, when it is taken into consideration, that we used liberally of the fruit for our table, and sent out to our friends.

Our mode for cultivating the plant is this—early in December or January, and in some cases, even as late as February or March, we cover our Strawberries with pine or other straw. This we set fire to, and thus consume all the decayed leaves and suckers of the plant, which may have been left from the last season. Immediately after this operation we cover the bed with a moderate portion of cowpen manure, or oak ashes, (we prefer the latter if we have it) and over this lay rice chaff two or three inches thick.

The chaff, together with the manure, impart warmth to the land, and cause the plants to spring up much earlier than they otherwise would. The berries are sooner in market, bear larger and longer in the season, and are in every other respect superior to those cultivated in the ordinary mode. Besides this, the chaff prevents the suckers from taking root; keeps the rain from filling the fruit with dirt, and throws off the too great operation of the sun from the berries while ripening. In our next number, we will enter more largely into this subject.

"*The South-West;*" *by a* YANKEE.

Is it not a little surprising that we should be indebted for the best—indeed the only accurate account of this interesting region of country, to a book, the title of which heads this article, and which professes to be written by a Northern man! In especial too does it reflect on South-Carolina, when we consider, that so many of her most intelligent sons, have taken up their abode in that land, and

that she supplies so much of her very life's blood to the prosperity of that region. Most that we know of the great cotton growing section of the South-West, is made up of the imperfect representations of travellers, or the too partial accounts of our own friends who have settled upon the soil, and wish to have us as neighbours. These *ex-parte* relations, we have ever thought, were always to be taken with caution, and we have more than once wished, that some stranger who had no interest or affections in the country would give us a full, fair and impartial account of this land of promise. That wish has now been gratified, and any individual feeling the same want, may have it supplied in the book before us. It is indeed a book infinitely removed from the pile of trash, to which every passing tourist of the day is adding his burden, and should be read we think by every Southerner. The author's aim, as he tells us, has been to present the result of his experience and observation during a residence of several years in the South-West. During this time he has studied well and become intimately acquanted with the institutions and condition of the country which he describes. The Delta of the Mississippi, the Byzantium of the new world, with its hundred tongues and thousand vices and amusements, and the pie-bald Natchez, and the fertile valley of the great stream, are all painted with a vividness that makes us almost present. Add to this the mass of practical information on the system and economy of the plantations of the West, their cultivation, cost and profit, not to mention the precise and accurate summary of the mode of cultivating the cotton, which we have selected for this Journal, render the book peculiarly interesting to our planters. Not only for its agricultural information indeed, will it be found acceptable, but for the wise and impartial tone with which it speaks of southern institutions. It will, we are certain, tell many truths, which were before unknown to northern ears, and correct many vile slanders which have so long aspersed Southern humanity. The time has come when such books should be written and read. When the liberal and enlightened should come among us and see for themselves. When the result of their experience and observation should be published to the world, and the strong language of common sense and truth silence forever the empty rantings of ignorance and calumny. We quote

from among an hundred others equally illustrative of the right condition of the negro, the following. The author is speaking of Main-street, the Broadway of Natchez.

"Here, at the corner, surrounded by a crowd, is an auction store.—Upon a box by the door stands a tall, fine-looking man. But he is *black*; ebony cannot be blacker. Of the congregation of human beings there, he is the most unconcerned. Yet he has a deeper interest in the transactions of the moment than all the rest—for a brief space will determine whom, among the multitude, he is to call his master! The auctioneer descants at large upon his merits and capabilities.—"Acclimated, gentlemen! a first-rate carriage-driver—raised by Col. ——. Six hundred dollars is bid. Examine him, gentlemen—a strong and athletic fellow—but twenty-seven years of age." He is kocked off at seven hundred dollars: and with "there's your master," by the seller, who points to the purchaser, springs from his elevation to follow his new owner: while his place is supplied by another subject. These scenes are every day matters here, and attract no attention after beholding them a few times; so powerful is habit, even in subduing our strongest prejudices. But the following dialogue, overheard by me, between two well-dressed, smart-looking blacks near by one seated listlsssly upon his coach-box, the other holding the bridle of his master's horse—though brief, contains a volume of meaning, in illustrating the opinions and views of the blacks upon the state of their degraded race.

"You know that nigger, they gwine to sell, George?"

"No, he field nigger; I nebber has no 'quaintance wid dat class."

"Well, nor no oder gentlemens would. But he's a likely chap.—How much you tink he go for?"

"I a'n't much 'quainted wid de price of such kind o' peoples. My masser paid seven hundred dollar for me, when I come out from ole Wirginney—dat nigger fetch five hun'red dollar I reckon."

"You sell for only seben hun'red dollars!" exclaimed the gentleman upon the coach-seat, drawing himself up with pride, and casting a contemptuous glance down upon his companion: "my massa give eight hundred and fifty silver dollars for me. Gom! I tink dat you was more 'spectable nigger nor dat." At this turn of the conversation the negro was struck off at seven hundred, at which the colloquist of the same price became highly chagrined; but stepping upon the stirrup, and raising himself above the crowd, that he might see "the fool massa what give so much for a miserable good-for-nothing nigger, not wort' his corn," consoled himself with the reflection that the buyer was "a man what made no more dan tirty bale cotton; while my master make tree hun'red, and one of de firs' gemmans too!"

Thus, though denied the privileges of his desired "caste," by the estimation of his personal value, he aspired to it by a conclusive argument, in the eye of a negro, viz. his master's wealth and rank in society. Can individuals, who are thus affected at the sale of their fellow-men, and who view their state of bondage in this light, feel deeply their own condition, or be very sensitive upon the subject of equal rights? Yet thus do negroes view slavery. Thus do they converse upon; and are as tenacious of the limited privileges, (yet to them unlimited, because they know, and can therefore aspire to no other) which, like flowers, are entwined among the links of their mo-

ral bondage. There is one, proud that his chain weighs down a few more gold pieces than that of his fellow, while the latter is in no less degree mortified at the deficiency in weight of his own. Do such men "pine in bondage" and "sigh for freedom?" Freedom of which they know nothing, and cannot, therefore, feel the deprivation; a freedom of which they have heard only, as the orientals of their feebled genii, but to which generally they no more think of aspiring than the subjects of the caliph to the immortality and winged freedom of these imaginary beings. These two negroes I have seen repeatedly since, and am assured that they are as intelligent, well-informed, and "respectable," as any of their class; none of whom, allowing a very few exceptions, entertain higher or different views of their state as slaves, or of their rank in the scale of human beings. Do not mistake me: I am no advocate for slavery; but neither am I a believer in that wild Garrisonian theory, which, like a magician's wand, is at once to dissolve every link that binds the slave to his master, and demolish at one blow a system that has existed, still gaining in extent and stability, for centuries. The famliar French proverb, "imagination gallops while the judgment advances only on a walk," is most applicable to these visionary theorists who would build Rome in a day."

Such indeed is the true condition of the slave. He views his slavery as a thing born with him and to die with him. He has never known of any other condition for himself or his ancestors, and if left to himself would live contented and wish for no other. Let our fanatics read the "South-West" with attention, and if they do not rise from it better informed, and less wild in their enthusiastic crusade against us, we have then attributed to them more impartial and unbiassed feelings, than they merit.

PART II.

SELECTIONS.

The Cotton Crop.

[FROM THE SOUTHWEST—BY A YANKEE.]

The following valuable paper upon the *Cultivation of Cotton*, is from the penof Dr. J. W. MONETT. of Mississippi, already well known to the Medical world by his Treatise, publish at the North, upon the prevailing epidemics of this climate.

"HAVING finished or relinquished the miscellaneous business of winter, such as clearing, building, ditching, and splitting rails, the hands are actively employed in making preparation for another crop. The first thing to be attended to, is the repairing of all the fences, with the light force, such as boys and women; while the strong hands are employed in chopping, and log-rolling in the new grounds. These operations are commenced generally about the middle of February, and continued two or three weeks, unless the farm is mostly new; in which case the clearing of the new ground continues four or five weeks until it is time to plant corn, generally from the first to the twentieth of March. During all this time several ploughs, in a well opened place, are kept constantly running (unless prevented by rain,) in "listing up" corn and cotton ground. The distance between the ridges for cotton varies according to the strength of the soil, and the consequent size to which the plant grows. In the rich bottoms the distance between the middle or tops of the ridges must be from five to seven feet; while in the thin upland soil, a space of three or four feet is amply sufficient. In the latter soil, the cotton plant attains the height of three or four feet, and branches laterally about half that distance. But in the rich alluvial lands, the stalk not unfrequently shoots up to six and eight feet, and branches so as to interlock with the other rows six or eight feet apart.

Early in April, and sometimes even in the last days of March, the cotton-planting commences. To open the ridges, a narrow plough is run by one horse along the middle of the ridge, so as to open a narrow shallow furrow, in the mellow ground first ploughed. Immediately behind the opening plough, follows the sower, with his sack of cotton-seed suspended from his neck, walking at the same pace with the plough-man before. At every step or two he throws the seed so as to strew it four or five feet ahead in the furrow, at each dash of the hand. The quantity sown is often unnecessarily large, being frequently twenty times more numerous than the stalks permitted to remain growing. This profusion of seed is sown for the purpose of obtaining a "good stand," after allowing for defective seeds as well as some which may not be covered, and others that may be covered

too deep, and also for many plants that may sicken and die after they have vegetated and come above the ground. This latter circumstance frequetly occurs: a stand may be amply sufficient when first up, but from drought, excessive rain, or chilling winds, one half in the rows, and sometimes whole acres together, die with the "rust," "sore skin," or "yellow fever."

After the sower another hand follows closely with a light horse harrow, drawn over the furrow, for the purpose of covering the seed. This throws in the loose earth over the seed, and covers them so lightly that often one-third of them are still visible, yet this covering is sufficient, for no seeds require less covering than cotton-seed. They will sprout and take root, when left on the surface of the ground, if a slight shower follows.

On a large plantation where there are, say, fifty effective hands, there will probably be three or four sets of hands engaged at the same time in planting; each set, however, not in any way interfering with the other; but all pushing on with a constant brisk motion. As a medium task, each set, of three hands, will very easily plant ten acres, but oftener fifteen in old well broken land. During the planting season, or between the first of April and the middle of May, there are always from one to three wet or rainy spells, continuing from one to four days each, so that the planting is necessarily interrupted. This, however, is an advantage which none complain of, as it facilitates and expedites the vegetation of the seed already planted; while it causes the several portions of the crop to vary eight or ten days in age, and thereby renders the working more convenient. Twenty planting days are sufficient to put in the whole cotton crop, or at least as much as can be properly tended and secured. On the rich bottom lands, when the growth of the cotton is very luxuriant, it is desirable to finish planting always before the first of May; but in the hills, especially where the soil is thin, and the cotton plant attains but a small comparative size, it is preferable to plant between the fifteenth of April and the twentieth of May. Cotton thus planted in thin soil, will mature and open as soon as that which has been planted three weeks sooner in bottom lands.

When the earth is moist and warm, cotton-seed will sprout, and be up in about five or six days: but if the soil be dry it takes much longer —or until there is rain sufficient to saturate the loose earth: for the seed, being covered with a thick coat of coarse wool, is not so readily, as some other seeds, acted upon by slight moisture. As the plant first comes out of the ground, it has somewhat the appearance of a young bean, or of the okra plant, being composed at first of two lobate leaflets, which continue, gradually enlarging, until about the end of the first week, when a leaf or two begins to put out between the lobules. The young cotton-plant is extremely tender, and sensible to the most moderate degrees of cold: the slightest frost cuts it off—while it withers and dies from the effects of a few hours of chilling winds.

From the profusion of seed planted, the cotton-plant of course comes up very thick and crowded in the row; in which condition it is allowed to remain a week or ten days, and often of necessity much longer, when it is thinned out, or as it is called, "scraped." During the scraping time there is one constant rush, and every hand that can use a hoe is brought into the field. The process of scraping commences by running a light furrow close on each side of the row of young cotton, with the share of the plough next it, so as to throw the dirt from

the cotton and trim off the scattering plants: the space left unbroken between these two furrows is about eight or ten inches wide, ready for the hoes. If there are many hoe hands there are several ploughs "barring off," as it is called. The hoe hands follow close upon the ploughs, each hand upon a separate row, and with hoes sharp, and set particularly for "scraping." Experienced cotton hands run over the rows with great rapidity, and evince great dexterity in striking out all to a single stalk, which is left at the distance, from its next neighbour, of at least the width of the hoe; and in bottom land, at double that distance. Thus, in thin land, the stalks are desired to be ten or twelve inches apart, and in the rich lands about eighteen or twenty inches in the row. The cotton-plant thus thinned out, continues to grow slowly until the hot weather of June sets in, when it begins to grow rapidly, putting out a blossom at each new joint formed on the branches. This sucessive florescence continues until frost puts a stop to the growth of the plant, which is generally in October. The pericarp or boll of cotton, from the first bloom, is generally matured in eight or ten weeks, when it begins to crack at the four seams in the bolls, until the four valves spread wide open, remaining attached only at the base or extremity next the *stem*. When the valves are thus open, the cotton with the seed, to which it adheres in a kind of cluster, hangs down from one to four inches. From June until October, the cotton exhibits a successive and continued florescence, while the plant is loading itself with green bolls, from the size of a young peach, having just dropped its blossom, to that of a small hen's egg. About the last of August the matured bolls begin to burst or open their valves and suspend their cotton; and from that time the plant exhibits at the same time, blossoms, and bolls of every size, and every stage of maturity. Towards fall, when the heat of the sun is constant and intense, the bolls will mature and open in six weeks from the blossom.

After the first "scraping out," the cultivation is carried on much in the same manner as in the cultivation of corn, until about the first of August, when it ceases, and the crop is laid by. The same kind of cultivation that would make good corn would make good cotton. In this, however, there is a difference of opinion: some will hill, or heap the earth up in high ridges with both corn and cotton, while others will keep the soil loose and level about both; the latter is decidedly the proper mode for either.

When the blossom is first unfolded, which generally occurs in the night, in form it resembles the white hollyhock, but is smaller, and is of a faint yellowish white colour, which it retains until about noon; the heat of the sun then being intense, the corolla partially closes, not unlike the four-o'clock-flower, and at the same time its hue is changed to a delicate rose, or lilac. On the following day the flowers become more deeply tinged; toward the close of the second evening they are of a deep crimson, or violet hue. During the succeeding night, and morning, that is, about forty-eight hours after they first open, they always drop off, while of a deeep violet colour, leaving the young capsule or boll. The blossoms generally open, as well as fall off, during the night, and early in the morning. Thus a cotton field in July, August, September, and October, exhibits the singular appearance of a continued crop of opening, closing, and falling blossoms, with an almost equal mixture of white, lilac, and purple flowers; while each morning the ground is seen covered with the latter, and the branches replenished with the white.

As the ploughing generally ceases and the crop is "laid by" about the last of July, when the plant is large and brittle, there is but little done in the field during the first three weeks in August, except that a few light hands are kept employed in cutting, or pulling up the "tie-vines" which are sometimes very troublesome: the tie-vine is nothing more or less than the morning glory, so carefully cultivated in gardens at the north, for the purpose of shading arbours and summer houses.

Towards the last of August, or as soon as there is sufficient open cotton for a hand to pick fifteen or twenty pounds during the day, the light force, consisting of women and children, is put to picking for a week or ten days; when there being sufficient cotton opened, to make a full day's work, all hands are engaged without exception. Then begins another push, which continues until the whole crop is gathered and housed. During "picking time" which continues where full crops are made until the first of December, and in river lands, until the first of January, the hands are regularly roused, by a large bell or horn, about the first dawn of day, or earlier, so that they are ready to enter the field as soon as there is sufficient light to distinguish the bolls. As the dews are extremely heavy and cool, each hand is provided with a blanket coat or wrapper, which is kept close around him until the due is partially evaporated by the sun. Without this protection they would be completely wet from head to feet, in a very short time; and as they would be in the field at least two hours before the sun's rays would be felt, they would be perfectly chilled, if no worse consequence attended. The hands remain in the field until it is too dark to distinguish the cotton, having brought their meals with them. For the purpose of collecting the cotton, each hand is furnished with a large basket, and two coarse cotton bags about the size of a pillow case, with a strong strap to suspend them from the neck or shoulders. The basket is left at the end of the row, and both bags taken along: when one bag is as full as it can well be crammed, it is laid down in the row, and the hand begins to fill the second in the same way. As soon the second is full, he returns to the basket, taking the other bag as he passes it, and empties both into the basket, treading it down well, to make it contain his whole day's work. The same process is repeated until night; when the basket is taken upon his head and carried to the scaffold-yard, to be weighed. There the overseer meets all hands at the scales, with the lamp, slate and whip. On the left hand margin of the slate is pasted a strip of paper, with the name of each written in fair large hand. As soon as their baskets are set upon the ground, the weighing commences. Each basket is carefully weighed, and the nett weight of cotton set down upon the slate, opposite the name of the picker. The negroes stand around, to remove and replace the baskets as they are weighed; and occasionally the countenance of an idler may be seen to fall. Then is the time for the overseer to watch close or he may be greatly imposed upon by the cunning and lazy, who are apt, in the crowd, to prevent their baskets from being weighed, by substituting a heavier one which has been passed, or they may fill up their baskets from one already weighed. Sometimes a negro, known to be lazy, will have heavy weight and will probably extort from the overseer expressions of praise and encouragement, unless he examinines the basket, when perchance he may find one of his sacks full of moist earth snugly covered up at the bottom; such tricks as these will be continually practised upon an overseer, who is careless or "soft;" a quality or character, which

none can more readily and properly appreciate than the negro. It is not an uncommon occurrence for an overseer, who is even vigilant, amid the crowd of negroes and baskets, with only one lamp, held close to the scales and slate, to weigh some of the heavier baskets several times, their exact weight being changed by taking out, or putting in a few pounds; while the lighter ones pass entirely unnoticed. No inconvenience arises to any one from such incidents, except that the crop is not gathered in as good time as it might otherwise have been, and a portion consequently is wasted.

After the weighing is over, and the baskets are emptied, or turned bottom upward, upon the scaffolds, the overseer takes the slate, and examines the weights attached to each name. Those who are found to have brought in less than their usual quantity, unless for good reasons, are called in the order of their names: the individual advances, and if his reasons are insufficient, he is ordered to lie down upon his face, with his back exposed; when he receives ten, twenty, or fifty stripes with the whip, according to his deserts. In this way the overseer goes over the list, punishing only those who have idled away their time.

No one knows that he is to be punished until his name is called, when he has an opportunity of giving his reasons for his imperfect day's work. As to the quantity which a hand can pick in a day, there is a great difference; some pick only from 75 to 100lbs., others from 150 to 200lbs.,'while some extraordinary pickers can pick as high as 4 or 500lbs. in one day. But to pick these last weights require such brisk and incessant motion, that it could not be done two days in succession without danger of life or health; and is only attempted for a wager, or such like reason. The average weight picked by all the hands on a place, will seldom exceed 150 to 160lbs. in good picking. Children from ten to fifteen years of age generally pick nearly as much as grown hands. The scaffolds for drying cotton are mostly temporary, being made anew every summer, of common boards or plank. Upon these the cotton is suffered to lie spread out to the sun, at least one day to dry; while some old or decrepid hand stays at the scaffold, to turn and spread it, as well as to pick out leaves and trash.

Every day, when the weather will admit, beholds a repetition of the ceremony of picking, weighing, and drying, as before detailed. Those who have gins, as all planters should have, generally keep the stand running during the picking season, so as to gin out the cotton as fast as it is picked. If there are forty or fifty good pickers, it requires one stand to be kept running constantly to keep up with them. In such cases, during wet weather, when the hands cannot pick cotton, the ablest of them are kept baling the cotton which has been ginned since the last rain, or within the last eight or ten days. When there are not more than twenty, or twenty-five, the gin will be able to keep up, by ginning the last three days in the week, in addition to all rainy weather; and the able-bodied hands will be able to do all the pressing and baling the wet days.

Gin, in the common acceptation, signifies the house and all the machinery required to separate the *lint* from the seed, and to press it into large bales, weighing generally from 400 to 500 pounds. The house is a large inclosed roof, resting upon blocks or posts, which support it at about eight or nine feet from the ground. The common area covered is about forty by sixty feet, the rafters resting upon plates, and the plates upon flooring beams, or joists, upon which the

floor is laid. About the distance of one-third the length of the house, two gearing beams are laid across, for supporting the machinery. These rest upon the top of the block, or on posts framed into them. On the ground floor is the horse-path for drawing the main wheel and counter wheel; the last of which carries a broad band, which passes over and turns the cylinder and brush of the gin-stand alone. The large plantations are adopting steam engines, and erect for the purpose very large and expensive buildings, in which are placed two, three or four stands. A gin-stand is a frame, which runs a wooden cylinder with an iron shaft running through it; this cylinder is encircled at every inch by a very thin circular saw, with sharp hooked teeth, upon which the seed cotton is thrown, running through parallel grates. The teeth of the saws catch and carry through the lint from the seed. Just behind the cylinder is a fly-wheel brush—that is a fan, with a brush on its extreme circumference; this brush, running considerably faster than the cylinder, takes off the cotton from the teeth and blows it back. The space or room above is divided into two apartments; one for the stand and seed cotton, and the other for ginned cotton; the latter of which will contain cotton for twenty or thirty bales. A good gin-stand, with sixty or sixty-five saws, running constantly from daybreak in the morning until eight or nine o'clock at night, will gin out as much as will make three or four bales.

At the other end of the house, and immediately under the room containing ginned cotton, is the press. It consists of two large wooden screws, twelve or sixteen inches in diameter, with reversed threads cut in each end to within eighteen inches or two feet of the middle, through which there is a mortice for the lever. These screws stand perpendicularly, and about ten feet apart, and work into a large heavy beam above, and into another firmly secured below. The upper moves up or down, (when the screws are turned,) between four strong upright posts, framed together, two on each side, so as to come down straight and steady when pressing.

The lower sides of the press are composed of very strong batten doors; when the beam is brought sufficiently low, a spring is struck, and they fly open; when they are removed, leaving the naked bale standing on its edge under the press. A piece of bagging, cut to the proper size and shape, was put in the bottom of the press-box, before filling in the cotton, and another on top, immediately under the follower. These two pieces are brought together in such manner as to cover the cotton neatly, and there sewed with twine. The rope passed under and over it, through the grooves left in the bed-sill and in the follower, by means of a windlass, is drawn extremely tight and tied with double loop knot. When all is finished, the screws are turned backward, the beam rises, and the bale is rolled out. Notwithstanding there are seven bands of strong rope around it, the bale will swell and stretch the rope, until its breadth is at least two or three inches more than when in the press. To press and bale expeditiously requires at least four or five hands and one horse. When the box has been sufficiently filled, generally eight or nine feet deep, the men bring down the beam by turning the screws with hand levers as long as they can turn them; then a large lever is placed in the screw, with a strong horse attached to one end, and a few turns of the screws by the horse bring the beam down to the proper point, within thirty or thirty-four inches of the sill.

The requisite number of hands will put up and bale with a common press about ten or twelve bales a day, by pushing. After the bales are properly put up, the next thing is to mark and number them on one end. For this purpose a plate of copper, with the initials, or such mark as is fancied, cut in it, is applied to the end of the bale and the letters and figures painted through it with black marking ink.

The next trouble is to haul them to market, or the nearest landing for boats; sometimes this is a very troublesome and difficult task, especially in wet weather, when the roads, from the immense quantity of heavy hauling, in getting the crops to market, are much cut up, and often almost impassable. The planter who is careful to take all proper advantage of season and weather, will have his cotton hauled early in the fall, as fast as it is ginned, when the roads are almost certainly good.

The quantity of cotton produced to the acre, varies with the quality of the soil and the season. The best kind of river and alluvial lands, when in a complete state of cultivation, and with a good season, will produce on an average from 1500 to 2000lbs. of cotton in the seed per acre; while new land of the same quality will not yield more than 1200 or 1400lbs. per acre. The highlands, where the soil is fertile, will yield under the most favourable circumstances about 1400lbs., while those lands which have been many years in cultivation, where the soil is thin, will not yield more than from 800 to 1000lbs. per acre; and some not more than 600lbs. As a general rule 1300 or 1400lbs. of seed cotton, will, when ginned out, make a bale of 400lbs. or more. This is according to the correct weight of the daily picking in the cotton book; although after being weighed, it must lose some weight by drying.

The quantity of cotton raised and secured by good management most commonly average about five or six bales to the hand: and the quantity, among the mass of planters, more frequently falls below, than rises above this estimate. Some, with a few choice hands, may sometimes averages nine or ten bales to the hand by picking until January.

When the crop is all secured, which, as we observed before, varies from the first of December until some time in January, according to the season, hands, and extent of the crop, the hands are employed during the winter in clearing, chopping logs in the field, splitting rails, or ditching, if necessary. About the middle of February they resume preparations for "another crop."

Ploughing in a Green Crop.

[FROM THE NEW-YORK FARMER.]

As winter evenings seem to afford a suitable opportunity for intellectual improvement, and considering that the pages of a periodical of this kind are dependent very much on correspondents for matters of information, and that it is the part of every subscriber to contribute his mite to the improvement and information of the readers of an agricultural work of this nature, I have ventured to pen a few of my thoughts.

The farmers of almost every section of country differ materially in their modes of farming, and opinion respecting the most profitable manner of converting the produce of their farms into money. Their

difference of opinion is certainly allowable and natural when we take into consideration the difference of soils, the distance from markets, the difficulty in most neighbourhoods of obtaining proper help, &c. all of which the farmer has to accommodate himself to in the best manner he can. The business of a farmer is in my opinion an independent, an honourable, and, when properly pursued, a profitable one; and no doubt, so long as our country continues in prosperity, the increasing demand for produce will insure to the farmer a handsome remuneration for the products of his soil.

Ploughing in of green crops, as practised in the State of New-York, is so economical a mode of enriching the soil, that I have often marvelled it is not practised to a much greater extent in other places. Allow me to recommend the spreading of a coat of lime previous to ploughing in.

If the slovenly farmer who allows his weeds to grow up unmolested and cover his fields, would, instead of this, plough them under, after a few repetitions of this, he would be surprised at the increased fertility of the soil, and save the labour of carting manure from a distance

With respect to the best crops for turning under, there are various opinions; rye and red clover are, perhaps, as much in use as any other, though some plough in oats, millet, turnips, &c. In dry situations this practice succeeds best, as by the ground remaining exposed to wet, the crop turned under would not be so likely to rot.

With regard to turnips for ploughing in, I must acknowledge myself an unbeliever; I have heard of its being done to profit by others, but have seen it tried in my own neighbourhood without success. Perhaps, however, it is owing to some difference in cultivation or soil with which we are unacquainted. It would confer a favour on us Jersey men if some of your successful New-York farmers would furnish us with their experience on the subject of ploughing under green crops for manure, and on other modes of economising that very expensive, yet indispensable material in the business of agriculture.

JUNIUS.

Curiug Meat.

[FROM THE BALTIMORE FARMER]

THE following receipts for curing meat we copy from the Genesee Farmer. We approve of them all, except the one for curing hams, and to that we would add six pounds of brown sugar to every bushel of salt, and in addition we would rub all the parts of a ham where skippers usually make their attacks, with a small proportion of Cayenne pepper. And in hanging the meat up, we would always hang the large part upwards. The proportion of salt is for a thousand weight of pork.

Salting Pork.—The common and simplest method is to imbed the pieces completely in salt, for which purpose a layer of salt should be first placed upon the bottom of the barrel, then a layer of pork placed in the usual manner, and the interstices well filled with salt. It is always best to apply plenty of salt, as whatever is not absorbed by the meat is in good condition for applying next year. Saltpetre, unless employed in very small quantities, is injurious to the quality of pork.

A small proportion, however, (some recommend only a four-hundredth part,) prevent the meat from absorbing so great a quantity of salt, at the same time that it is preserved equally well. Many add a small quantity of sugar to preserve its flavour.

Curing Hams.—Mix one bushel of first rate salt with one pound of saltpetre, rub the pieces well with the mixture, and put them down. In a few days take them up and rub them again, which makes them take the salt evener. In about four weeks, remove them and wash them, when they will be ready to be hung in the smoke house. Shoulders and smaller pieces should be taken and washed sooner, according as they are less in size. The meat should be hung in the smoke house so that it cannot possibly fall, for if a piece should in the fire, it would most probably burn the house, or injure or destroy the rest.

The following has been recommended as a most excellent mode of preseving hams: take one pound of salt, one ounce of saltpetre, pulverize them well and mix them, add about two quarts of molasses, rub the hams thoroughly with this mixture, lay them flesh side up and let them remain eighteen or twenty days.

Preserving Beef.—The following method is recommonded in Deane's New-England Farmer: "For a barrel of beef of the common size, reduce to powder in a common mortar four quarts of common salt; then eight ounces of saltpetre, and five pounds of brown sugar. Let the salt be well rubbed into the pieces, pack them close in the barrel, and sprinkle the saltpetre and sugar evenly over each layer. No water at all is to be applied. The juices of the meat, if well packed, will form a sufficient quantity of brine; and the beef will keep sweet and good through the following summer, supposing it killed and packed in the beginning of winter, or late in autumn; and will not be two salt to be palatable. Draining off the brine and purifying it by boiling and skumming, with the addition of a little salt in the beginning of summer, and returning the brine upon the meat, will be a real improvement.

Another method for pickling beef, is recommended in the same work, in substance as follows: For every 100lbs. of beef, take 16lbs. fine salt, 2lbs. brown sugar, 4½ gallons of water, and 6oz. of saltpetre. The salt. sugar and water are to be put into a brass or copper kettle over a fire. Continue to stir the salt frequently until it is all dissolved, and the scum ceases to rise, which should be skimmed off as it appears. After this add the saltpetre. Let the pickle stand till it is about cold, or blood warm. Have the beef cut in small pieces and packed closely, free from any bloody pieces. Add the pickle, and cover it tight from the air. Should there be any appearance of mould on the surface of the pickle, at any time, add a handful or two of fresh salt.

Succession of Crops.

[FROM LOW'S ELEMENTS OF PRACTICAL AGRICULTURE.]

As crops of the cultivated plants succeed to each other upon the same ground, a question to be determined is the order in which the different kinds should follow each other.

All plants which are cultivated, and which are carried from the ground where they are produced, tend to render the soil less productive, or, in the language of farmers, to exhaust it.

But plants which are suffered to decay, or which are consumed by animals on the ground on which they grow, do not exhaust the soil. On the contrary, the decay of the stems and leaves of such plants, either naturally, or by the consuming of them by animals, tends to add those decomposing organic matters to the soil which form one of the elements of its fertility. This process may be imperceptible and slow, but it is that which nature herself employs to form the soil, as distinguished from what has been termed the subsoil.

Sometimes this process of decay is counteracted by the singular natural provision, of a conversion of the decomposing vegetable into a substance which itself resists decomposition—peat. But, with this exception, the tendency of the decay of vegetables upon the surface is to add to the fertile matters of the soil.

This is well understood in the practice of agriculturists. When the productive powers of a soil have been exhausted by cultivation and the carrying away of its produce from the surface, it is laid down to herbage, in which state the future vegetation which it produces tends, by its decomposition upon the surface, to renovate the productive powers of the soil. Land in this state is said to rest.

When land, however, has been impoverished by successive crops, and has become full of weeds, the laying it down to rest in that state is attended with less beneficial consequences than when the soil has been previously cleaned of injurious weeds, and fertilized by good culture. In the former case, the process of renovation is slow, if perceptible at all; the useless plants increase, and not those which are beneficial and afford food to pasturing animals. Lands, when properly laid down to grass, therefore, tend to recover its wasted powers of production. Land not properly laid down has less of this healing property, and may be more full of weeds and no richer when ploughed up again after a time, than when first laid down. Under good management, however, the laying down of cultivated land to grass and other herbage plants to be consumed upon the ground, is a means of resting the soil, and renovating its powers of production; and this mode of recruiting an exhauted soil being always at the command of the farmer, its application is important in practice. It is to be observed also, that the poorer soils require this species of rest and renovation more than those which are naturally productive.

The experience of husbandmen from the earliest times has shown, that the same kinds of plants cannot be advantageously cultivated in continued succession. The same or similar species tend to grow feebly, or degenerate, or become more subject to diseases, when cultivated successfully upon the same ground: and hence, the rule which forms the basis of a system of regular alternation of crops is, that plants of the same or similar species shall not be cultivated in immediate succession, and further, the same rule has been thus far extended, that the same species shall recur at as distant intervals of the course as circumstances will allow.

All herbaceous plants whose produce is carried off the ground which produces them, may be said to exhaust the soil upon which they grow. But all such plants do not exhaust the soil in the same degree: for after some species the soil is seen to be more impoverished than after others.

And not only do different species of plants exhaust the soil in a greater or less degree than others, but the same species does so ac

cord to the different period of its growth at which the plant is removed from the ground.

When the herbaceous plant is suffered to mature its seeds, it exhausts the soil more than when it is removed before its seeds are matured. All herbaceous plants, therefore, when cut in their green state, that is, before they have matured their seeds, exhaust the soil less than when they remain until they have ripened their seeds. Thus the turnip, when used in its green state, is one of the least exhausting in the agricultural class of plants to which it belongs; but the turnip, when allowed to remain upon the ground until it has ripened its seeds, is one of the most exhausting plants that is cultivated among us; and so it is with many others.

Further, certain plants, by the larger or smaller quantity of manure which the consumption of them affords, are more or less useful in maintaining the fertility of the farm.

When a herbaceous plant is suffered to mature its seeds, and when any part of these seeds is carried off the farm, the plant affords, when consumed by animals, a smaller return of manure to the farm than if the same plant had been cut down before it had matured its seeds, and been in that state consumed by animals. Thus it is with the turnip plant referred to. This plant is with us sown before midsummer. In the first season it forms a fustiform root, and puts forth a large system of leaves. Early in the following season it puts forth a long stem, which bears flowers, and the seeds are generally matured about midsummer. If this plant is removed in the first stage of its growth, that is, after it has put forth his large leaves and formed its bulb, and is then consumed by animals, it returns a great quantity of manure; but if it remains until the second state of its growth, then the consumption of its stems and leaves returns scarce any manure. The juices of the roots have apparently been exhausted in affording nutrition to the flower stem, the flowers, and the seeds.

It is beyond a question, that, in order to bring a plant to its entire maturity, by the perfecting of its seeds, a larger quantity of the nutritive matter of the soil is sucked up by it than when it is brought only to its less advanced stages. When crops of plants, therefore, are suffered to arrive at maturity, they are greater exhausters of the soil on which they grow than when they are cut down while they are green; and if those seeds are in whole or in part carried off the farm, the crops are exhausters of the farm, as well as of the ground which had produced them. Were the ripened seeds to be wholly returned to the soil, it may be believed that they might give back to it all the nutritive matter which had been derived from it. But in practice, seeds are employed for many purposes, and are generally carried off the farm which produces them. When this is done in whole or in part, the plants produced are in an eminent degree exhausters of the farm, as well as of the soil on which they have grown.

Further, certain plants, from their mode of growth and cultivation, are more favourable to the growth of weeds than other plants. The cereal grasses, from growing closely together, and not admitting, or admitting partially, the eradication of weeds, are more favourable to the growth and multiplication of weeds than such plants as the turnip and potato, which are grown at a considerable distance from each other, and admit of tilling during their growth and whose broad system of leaves tends to repress the growth of stranger plants.

L. of C.

Having these principles in view, certain rules may be deduced from them, for the order in which the crops of plants in cultivation in a country shall succeed to each other on the same ground.

1st. Crops consisting of plants of the same or similar species, shall not follow in succession, but shall return at as distant intervals as the case will allow.

2d. Crops consisting of plants whose mode of growth or cultivation tends to the production of weeds, shall not follow in succession.

3, Crops whose culture admits of the destruction of weeds, shall be cultivated when we cultivate plants which favour the production of weeds. And further, crops whose consumption returns to the soil a sufficient quantity of manure, shall be cultivated at intervals sufficient to maintain or increase the fertility of the farm.

And 4th, when land is to be laid to grass, this shall be done when the land is fertile, and clean.

These rules may be applied to the plants which form the subject of common cultivation in the fields. In this country, the plants chiefly cultivated on the large scale are—the cereal grasses, chiefly for the farina of their seeds; certain leguminous plants, as the bean and pea; plants cultivated for their fibres, as the flax and hemp; for their leaves, roots, or tubers, as the turnip, the cabbage, and the potato; and certain leguminous and other plants for forage and herbage. The plants of these different classes are yet to be described; and they are now only referred to with relation to the order in which they may succeed to each other in cultivation.

The 1st class of these plants consists of the cereal grasses. These are chiefly wheat, barley, and partially rye. All these plants are in an eminent degree exhausters of the farm. They are all suffered to mature their seeds, and are wholly or partially carried from the farm. Further, from the manner of their growth, and mode of cultivation, they all tend to favour the production of weeds. For these reasons, and on the general that plants of the same or similar kinds should not follow in succession, the cereal grasses should not succeed each other, but should be preceded or followed by some crop which exhuasts the soil less, or, admits of a more perfect eradication of the weeds.

2d. The leguminous plants cultivated for their seeds, as the bean and the pea, are all exhausters of the soil. They ripen their seeds, and these seeds are for the most part carried off the farm. Some physiologists suppose that they are less exhausters of the soil than the cereal grasses. But the essential difference between them, when considered with relation to their effect upon the soil, is, that, from their growth, and the manner of cultivating them, they are greatly less favourable to the production of weeds than the cereal grasses. By their broader system of leaves, they tend to stifle the growth of weeds more than cereal grasses: and further, they admit of tillage during a great part of their growth. This is especially the case with the bean crop, and so is cultivated in rotation with the cereal grasses, as a means of preserving the land clean.

3d. Hemp and flax, which are cultivated chiefly for their fibres, and all plants cultivated for their oils, are exhausters of the soil. They are suffered to form and ripen their seeds, and their stems afford no return of manure to the farm.

The next class of plants, from the large return of manures which the consumption of them afford may be regarded as enriching or res-

torative crops, in contradistinction to the others, which may be termed exhausting crops:—

1. The turnip, the rape, and other plants of the cabbage genus, cultivated for their roots and leaves and consumed upon the farm.

2. The potato, the carrot, the parsnip, the beet and other plants cultivated for their tubers, and roots, and consumed upon the farm.

3. The leguminous plant—the clover, the tare, the lucerne, and others—when cut green for forage, and consumed upon the farm.

The plants of the latter class, namely, the leguminous, when mixed with gramineous plants, as the rye-grass, are commonly termed, but would be more correctly termed the cultivated herbage or forage plants. They are often suffered partially to ripen their seeds, and are made into hay; and in this case they follow the general law, exhausting the soil more than when used green. And when the hay-crop is carried away from the farm, they are to be regarded as exhausting rather than restorative crops.

In speaking of these different classes of plants, the following terms may be employed:—

1. The cereal grasses may be termed corn crops.

2. The leguminous plants cultivated for their seeds, pulse crops.

3. The turnip, and other plants of the same kind, cultivated for their roots and leaves, may, with reference to the mode of consuming them, be termed green crops; or, with reference to the manner of preparing the ground for them, fallow-crops.

4. The potato, and plants of other families cultivated for their roots and tubers, may in like manner be termed green or fallow crops.

5. The leguminous plants cultivated for green food, as the lucerne and tare, may be termed green forage crops.

And lastly, the mixture of gramineous and leguminous plants cultivated for herbage or green feed, may, in compliance with common language, be still termed the sown or artificial grasses.

Further distinguishing these different classes of crops according to their effects upon the fertility of the farm, they might be divided thus:

1. Corn crops—exhausting crops, and favourers of weeds.

2. Pulse-crops—exhausting, but cleaning crops, or capable of being rendered so.

3. Green or fallow crops—restorative, and cleaning crops;

4. Green forage crops—restorative and sometimes cleaning crops.

5. The sown grasses—restorative crops.

Knowing these the general characters of the cultivated plants, we have, in divising a rotation, endeavoured to cause the restorative and cleaning crops so to alternate with the exhausting crops, as that the land may be preserved fertile and clean. Further, when we find that land cannot be sufficiently cleaned by means of cleaning crops, we must make use of the summer fallow; and again, when we find that the land requires rest, we may lay it down to grass for a longer or shorter time, taking care when this is done that the land shall be in as fertile a state as circumstances will allow, and free of weeds,

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Hard Times.

[FROM THE SILK CULTURIST.]

SOME farmers are so habituated to fault finding, that let seasons be ever so favourable, crops ever so abundant, and prices of produce ever so high, they will still complain about hard times. They also assign them as reason for "pulling up stakes" and moving west where man is not doomed to "eat bread by the sweat of his face," They say, land which in "old times could be bought for "forty shillings an acre, is now selling at fifty and sixty dollars—that corn which used to be sold for "half a crown," and oats at "pistareen" a bushel, are now selling, the former at a dollar and the latter at sixty-two and a half cents, and that every thing else is proportionably high—that, in short, the times are so hard they must go to Illinois or Michigan, where land can be bought "for a song," and where roast turkeys and fricasseed chickens are skipping about and begging to be eaten.

We accidently met one of these grumblers a few mornings since. He was an old acquaintance, a farmer, from a neghbouring town. After the customary salutations and inquiries respecting the health of his family, we asked him if there was any thing new. He said there was "nothing stirring" except hard times, and he supposed that was no news. We informed him we had not been aware that the times were hard; but on the contrary, had supposed they were unusually easy, especially for farmers. He replied that we were "mightily mistaken"—that the times were so hard that farmers found it very difficult to maintain their families and raise money enough to pay their taxes, and for himself he was so embarrassed that he must "sell ont" and go where land was cheaper and better.

We expressed our regret at finding him in straitened circumstances, and tendered him every assistance in our power in extricating himself from his difficulties. We told him we were laying in our winter supplies, and would take some of his produce off his hands and pay him the money for it—that if he would bring us in a few cords of two feet wood, we would give him three dollars a cord for it; but he said he had none to spare, having already cut off so much "to buy necessaries" that he should soon have to buy for his own fire. We told him we wanted a few loads of hay, for which we expected to pay eighteen or twenty dollars a ton; but he said his grass lands had almost wholly "run out," and his crop was so light that he should probably have to buy for his own steck by the middle of March. We offered him a dollar a bushel for corn—sixty-two cents for oats—twenty-cents cents for butter, &c. &e. He said they were great prices: but he was one of that unfortunate class of beings, who "when it rained porrige always had their dishes bottom side up"—that he had none of these things to sell, but had them all to buy for the support of his family.

We inquired about his farm, and the assistance he had in cultivating it. He said he had one hundred acres of what was once "tolerably good land;" but it was "worn out" and would not pay the expense of cultivation—that his house was "a leaky old thing," the roof of which he had been trying to cover for eight or ten years; but could not as yet get money enough to buy shingles—that he had three stout boys at home of twelve, fourteen and sixteen years of age, and that they all had to "work like dogs" to "bring the year about," and after all "it was a tough match to make the buckle and strap to meet," and

some years they did not meet at all, in which case he was obliged to "to go on tick." He imputed his difficulties wholly to the times—reprobated extravagance in female dress—expatiated with considerable warmth on the evils of pride, and wound up his story, by signing out that it was "terrible hard times."

We told him that he had fully satisfied us that it was indeed hard times, so far as the times concerned him—that he might go to Illinois, Michigan, or any where else, and rest assured they would follow him, unless he "he turned over a new leaf," and that he might as soon expect to get rid of "original sin" as poverty in the course he was pursuing. That if he wanted better times to stop grumbling and to go home—shingle his house—brush up his farm—and remember in future to always have his dish right side up.

Cinnamon Fields of Ceylon.

"*August* 31.—Our morning was, as usual on a first arrival, taken up by visits; in the afternoon we drove in Sir E. Barnes' sociable through the far famed cinnamon gardens, which covered upwards of 17,000 acres of land on the coast, the largest of which are near Columbo. The plant thrives best in a poor, sandy soil in a damp atmosphere: it grows wild in the woods to the size of a large apple tree, but when cultivated, is never allowed to grow more than ten or twelve feet in heigdt, each plant standing separate. The leaf is something like that of the laurel in shape, but of a lighter colour; when it first shoots out is red, and changes gradually to green. It is now out of blossom, but I am told that the flower is white, and appears when in full blossom to cover the garden. After hearing so much of the spicy gales from this island, I was much disappointed at not being able to discover any scent, at least from the plants, in passing through the gardens; there is a very fragrant smelling flower growing under them, which as first led us into the belief that we smelt the cinnamon, but we were soon undeceived. On pulling off a leaf or twig you perceive the spicy odor very strong, but I was surprised to hear that the flower had little or none. As cinnamon forms the only considerable export of Ceylon, it is of course preserved with great care; by the old Dutch law, the penalty for cutting a branch was no less than the loss of a hand; at present a fine expiates the same offence. The neighbourhood of Colombo is particularly favourable to its growth, being well sheltered, with a high equable temperature; and as showers fall frequently, though a whole day's heavy rain is uncommon, the ground is never parched."—*Bishop Heber.*

The Silk Worm.

[FROM THE GENESEE FARMER.]

THERE is neither perplexity nor mystery in the art of rearing and managing this extraordinary insect. We propose to prove this position by an appeal to the most popular treatise extant—relying on those only which are best adapted to the circumstaaces of our own country. The works which we consider most entitled to faith in the premises, are Kenrick's Guide, of which we have already spoken—and Cobb's

Manual, published two years since by order of the Legislature of this Commonwealth.

We learn from these sources, that in six weeks the vegetable substance of the mulberry leaf is converted into silken threads, by the operations of the silk worm. The eggs, whence the maggot proceeds, when first deposited, are of a pale yellow hue in size, smaller than grains of ordinary beach sand. In the course of four days, those which are likely to produce, assume a sort of lilac, or deep slate colour—those which exhibit no change of shade, are unproductive, and of no value. Until preparations are made for supporting the worm, the egg should be preserved in a dry cellar, inclosed in a box made tight, sufficiently safe from the depredations of vermin, and from the mouldering effects of moisture.

In the latter part of May, or beginning of June, when the mulberry leaf puts out, the eggs of the silkworm may be subjected to the process of hatching, if the weather be not cold and damp. The papers upon which the eggs have been lodged by the parent moth, may be placed on tables or hurdles in a small room, having a southern aspect, but not directly exposed to the sun's rays. In a few days, according to the temperature, the eggs will turn somewhat pale; when there should be laid over them sheets of white paper, riddled by means of a knitting needle, and bent up at the edges, that the young brood may not escape. Over these sheets, lay a few twigs of the mulberry, containing the young leaves. Towards these the insects will be attracted, and will at once cammence feeding. Fresh leaves, finely cut up, should now be administered three or four times in a day.

On the fourth day, the insects will have passed what is commonly deemed the first stage of their existence—at which time they become torpid, and must be allowed to rest. During this stage the litter which they occasion should be twice removed. They remain inactive three or four days, when they awake with an increased appetite; more food, less delicately prepared, must then be supplied, and their litter oftener removed. Another change, or moulting, preceded also by a state of torpitude, occurs on the thirteenth or fourteenth day. Hurdles of coarsely woven twine may be placed above them, overlaid with leaves, to which they will resort, leaving their litter to be easily removed—an operation which should now be daily performed.

Having reached the fourth stage, the worms are commonly of a light flesh colour. They now eat ravenously, and consume the fullest grown leaves in large quantities. They require feeding in this stage night and day—and their product of silk is increased in proportion to their supply of food, and their ability to devour it. It is important to the health of the worm, that cleanliness, and a pure atmosphere, be always maintained, especially in this stage.

When the insects are ready to commence spinning, or forming cocoons, they manifest an apparent restlessness, and frequently are seen wandering over the untasted leaves and reaching upwards. This period ordinarily arrives in about one month after the hatching. The worms are then usually more than three inches long, and nearly transparent. Brush, broom-corn, or other convenient means for climbing, should be placed for their accommodation. They soon ascend and enter upon their final labor, whereon they employ themselves without cessation for four or five days, when the cocoon is completed, the laborer remaining within, and changing to the chrysalis state.

A fortnight afterwards, a little light grey moth emerges from the cocoon, and without taking food at all, for the space of thirty or forty hours, proceeds to lay its eggs, three or four hundred in number, arranged circularly, and closely adhering to paper prepared for the purpose. The moth exists but a few hours after having thus made provision for a new generation.

There are numerous details, of course, connected with the treatment of this wonderful and interesting insect, which we have neither time nor space herein to specify. But we have presented a sufficiently general view of the subject, to satisfy the reader that there is but very little intricacy or difficulty in the matter. Those who may determine, practically, to pursue the inquiry, will engage shall be furnished with all necessary information at a very trifling expense. Our only design in the present article being to dispel doubts touching the ease and facility of transforming the mulberry leaf into silk, we have herein abstained from entering into particulars respecting the natural history of the worm, the appearance and preparation of the cocoon, &c. &c., all, or any of which, shall be cheerfully communicated to those who may need them for experimental purposes.

To Our Agriculturists.

[FROM THE NEW-YORK FARMER.]

FOREIGNERS, the least conversant with the grades of society in Europe, are much surprised at the low social estimation of the agriculturalists of this country. In every part of the civilized world, excepting this, they are ranked among the foremost in public opinion; here, every petty shop keeper is considered their superior. There are many exceptions to this rule, but as a class it will be admitted to be correct.

There must be something radically wrong in the self-estimation of our farmers, or such an inverted state of their esteemed condition could not exist. To endeavour to induce them to make a fair estimate of themselves, is the object of this essay. I will attempt to show them why, as a class, they ought to rank, at least, as high as any other, and then point out to them why they they now rank so much lower in public opinion than those of the same class in other countries. I have no wish to increase their pride for man has nothing to be proud of; besides, pride, as the term is generally understood, is a mean, grovelling quality, exactly adverse to a fair appreciation of ourselves in our social capacity.

The fact, that the cultivators of the soil are the primary producers of the whole wealth of the country, is of itself is sufficient proof of their superiority as a class. This fact no doubt will be denied by many of our dealers and shopmen, who are incapable of tracing effects to causes, and who, wrapt in self-conceit, have assumed a station that does not belong to them. The fact, however, can be easily demonstrated, which I shall endeavour to do in as plain a manner as possible.

We have about two millions of families, including farm labourers, employed in agricultural and horticultural pursuits. This estimate may be considered excessive, for there may be less than two-thirds of our whole population engaged in cultivating the soil; but however much beyond the reality, it alters the conclusion to be drawn from the premises only in diminishing the amount put in circulation annually, not in its inductive facts. We will suppose that the land under

cultivation affords no surplus beyond the support, in the first necessaries of life, to those employed in cultivating it. It is evident, in this case, that the farmer having nothing to sell, would be unable to purchase any thing; that every individual of our population would be compelled to cultivate the soil to obtain an existence, for there would be neither sellers nor purchasers. We will further suppose that the average surplus of each family, beyond their own existence, to be fifty dollars per annum, and that the whole of this were wanting to supply agricultural instruments. The amount to be expended would now be one hundred millions of dollars per annum, which would put into operation a given number of workmen in wood and iron, as well as a small number of dealers to facilitate the receiving and executing of orders. Trade has now commenced, but never could have started but for the farmer's surplus. If the average surplus of each agricultural family should be one thousand dollars, an estimate probably very near the truth, and the greater portion of this surplus be expended in the usual variety of objects which go to promote the comfort and luxury of families, it is evident, that in addition to the workers in wood and iron, there would be put in operation builders, cabinet makers, clothiers, and a thousand other sources of industry.

If, when these agents have accumulated capital, and by this means extended their operations so as to meet the increasing demand of the agriculturalists, shall pride themselves on a factitious superiority, forgetting in toto the source of their wealth, ought they not to he pitied rather than admired by the intelligent part of the community?

The amount put in circulation by our farmers, on the least estimate, would be two thousand millions of dollars per annum, and the number of workmen and agents employed to execute orders would be vastly increased. The whole capital accumulated by the country is exactly the amount saved out of this surplus, by the farmers, and the agents and workmen employed by them.

That our farmers should have a surplus of two thousand millions of dollars per annum, over and above feeding their families, would appear, at first sight to be much overrated; but after deducting four hundred millions for the wages of workmen, and three hundred for buying and planting new farms, buiding houses and farms, buying new instruments of agriculture and repairing old ones, we shall find that it leaves but about eighty-five dollars per head for our whole population for clothing, furnishing, and other necessaries and comforts sought by those who can afford to purchase them. It should also be recollected that five millions of our population derive all their necessaries, comforts, and luxuries, from this surplus, and that the annual accumulation of capital is a product of that excess.

So long as there is land in a country of first and second rate qualities, for the creation of new farms, so long can this primary source of wealth be extended. There is also ample room in this country for a great extension from the land now under cultivation, as at least one-third more product could be raised from it than is now produced; but as this consummation cannot possibly take place until interest of money and wages are lower, or new labour-saving machines shall be invented, we must hope rather than expect to see it realized in our day.

Manufacturers, dealers, and shopmen, and in fact all who are not labouring on farms, derive their whole support from this agricultural surplus. The capital, accumulated by those agents who buy and sell, whether merchants, shopkeepers, or dealers in any commodity, being savings from the varied circulation of said product, the farmers ought surely to be entitled to their highest consideration.

This surplus is by no means stationary, and the prosperity of some years, as well as the depression of others, are the results, in the greater number of instances, of the greater or smaller surplusses. If the surplus one year should be twelve hundred millions, and another twenty-two hundred, it would be easy to account for the elevations and depressions in the business community of the country. In fact, the variations which annually take place in these surpluses, is the only true barometer of a country's prosperity.

When merchants, manufacturers, and dealers in a country are operating with large masses of capital, the accumulation of many years, concentrated in cities and towns, they lose sight altogether of the original source of wealth. And where the right of primogeniture does not exist, as in this country, to enable agriculturalists to concentrate their property in the heads of families, the other classes will, apparently, be much richer, and claim a superiority. Their riches, however, is only *apparent;* for the far greater portion of wealth in every country must ever remain with the owners of the soil. Much of the capital yielded by dealers, is altogether fictitious, being predicated on credit, and a considerable share of their more solid capital is borrowed from the savings of property owners.

Let me ask our farmers why it is, with so many solid claims to superiority, that as a class they tacitly acknowledge themselves inferior to those who are there dependents? I need bring forward but one circumstance to prove the fact. When our farmers have a son they consider him more than usually talented, do they not bestow a better education on him, with a view to settle him with some merchant or dealer in our cities or towns, and this with the fearful odds against them of his being ruined in pocket, mind and body, as is the fatal issue with three fourths of the whole number? This is plainly acknowledging that it requires more talent and a better education to make a dealer and shopman, than it does to make a farmer, and this depreciated view of their own condition is the main cause of their being undervalued by the community in general.

There is no business or profession, in the whole circle of human pursuits, that requires more solid talent to execute well, than that of cultivating the soil, and there is no class of our citizens whose education is so generally neglected. It is too, generally considered, that to learn to plough, harrow, sow, drill and plant; to harvest well when crops are ripe, and sell when ready for market, are all the qualities necessary for a farmer, with the addition of a little cyphering and writing. These, it is true, are necessary qualifications for every man who has the management of a farm; but they are by no means all that are requisite to make the pursuit yield its greatest degree of profit, and sufficiently interesting to attach the most enterprising and talented of its sons to the calling. If the owners of the soil are desirous of acquiring wealth, and at the same time that degree of respectability, which will make them respect themselves as a class, they must acquire far more knowledge than the mere drudgery of a farm. They should know practically how to perform every branch of labour, in order to understand when their workmen do them justice; but the pursuit must indeed be miserably unproductive and uninviting if the owner of the estate cannot make more systematizing his business, and superintending the carrying out of the system, than by personal labor. They should understand mensuration sufficiently to be able to calculate the quantity of land after the chain has been run; the advantages of draining, with the most effective and most economical way of ope-

rating; the properties of different soils, including a knowledge of what seeds and plants are most productive in each, with a critical judgment of the manures or composts best adapted to different qualities of soil; sufficient of botany to enable them to judge of seeds, plants, and fruit trees, with the best mode of producing them in the greatest abundance and in the highest degree of perfection.

It will not be denied, that to acquire such knowledge would be highly advantageous to our agriculturalists, and not only to them as a class, but to the general community, for the average of the farming surplus would become so much larger as to materially benefit the whole mass. Bnt, say they, how is this knowledge to be acquired? Neither our common schools, academies, nor colleges, give any such instruction, therefore we have not the means of acquiring it. This objection is too true, and is a truth highly disgraceful to the enlightened age in which we live. The means of acquiring an agricultural education ought immediately to be put within the reach of this, our most valuable class of citizens. In every college there are professorships for physic, law, and divinity, but none for that class on which our prosperity and very existence depend. Agricultural schools, academies, and colleges, with experimental farms attached to each, and with such professors as are requisite for the scientific departments, cannot be too soon established. The expense of such establishments would be repaid a hundred fold during the existence of the rising generation. A farmer should learn arithmetic, mensuration, agricultural chemistry, mineralogy, geology, and the physiology of seeds, plants, trees, and animals. A certain portion of his time should be appropriated to acquiring scientific knowledge, the remainder to practical operations of scientific principles. The expense of such an education should be as moderate as possible, particularly in the commencement so low, as to induce those who have but little to spare for education, to send their sons to such establishments, in preference to any others, on the score of expense alone.

With such an education, our farmers, instead of looking to other pursuits for their most talented sons, would feel it a degradation to place them any where, but on the soil. Their sons too, finding agriculture the most exalted of human employments, would be proud of their calling. That time of the year in which they are most unemployed, in place of hanging heavy on their hands, would be appropriated to improving their minds. They would as a class stand boldly prominent in the front ranks of society, and instead of any feeling of inferiority, as is now too much the case, would be able justly to consider themselves on a perfect equality with the best of any class; and that ignorant flippancy they now so much admire in others would be found hollow and disgustingly nauseous. Politically they would become truly independent, and in place of being the tools of designing political knaves, they would have intelligence to enable them to think justly on every political subject, and manhood to back their opinion. But the most exalted of all considerations would be the effect on their moral condition individually. They would not only be able to appreciate themselves and their pursuit fairly, as a class of the human family, but in the investigatiou of the wonderful arrangement in the order of nature, they would feel that man was a being of exceedingly limited powers, that his utmost scope was as nothing in the presence of Him whose infinite mind had arranged, and whose infinite power had executed the wonderful works of creation. In possession of a physiological knowledge of the construction of seeds,

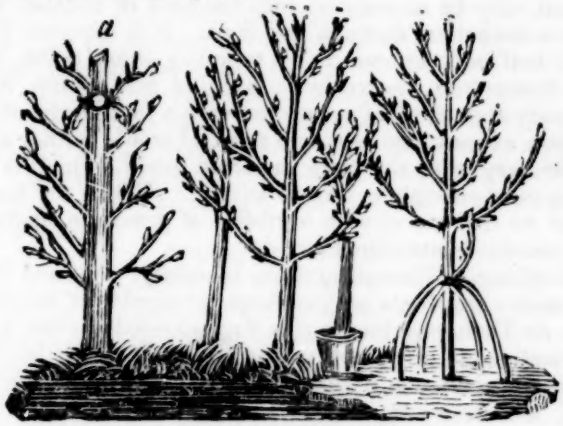
plants, and trees, with the adaption of soils to their growth and maturity, their contemplations would open to them a nearer approximation to the Divine Mind, and whether in the field or their chambers, they would enjoy this greatest and most desirable of all sources of human happiness, that they were never "less alone, than when alone."

W. P.

Alphabet of Scientific Gardening for the Use of Beginners; by JAMES RENNIE, M. A., *Professor of Zoology, King's College, London.*

[FROM THE NEW-YORK FARMER.]

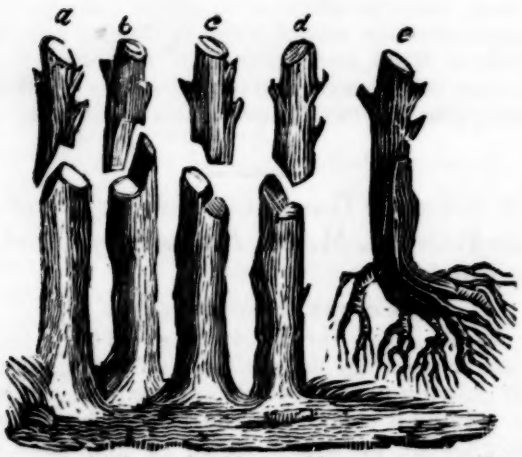
Grafting by Approach, or In Arching.—This is to grafting what layers are are to striking, the graft-slip not being cut off, but taken from a plant growing near the stock upon which it is suffered to remain till the joining is completed. Mr. T. A. Knight employed this mode not only for the purpose of filling up from itself the parts of a wall-tree deficient in bearing wood, *(a,)* but also of improving the quality of fruits. It might be advantageous used in a similar way to fill up the gaps in quickest any other hedges, where beauty of appearance is considered of consequence.



Examples of In-arching.

Slip, or Scion Grafting.—The slips taken off from one plant and joined to another, have the parts to be joined cut in various manners, according to the sort of plant, the size of the parts, and other circumstances. These will be better understood from the following figures than from mere verbal description.

a, whip grafting with a peg; *b*, side grafting; *c*, whip grafting with a tongue, or tongue grafting; *d*, side grafting.



a, b, c, d, chink, or shoulder grafting; *e,* root grafting.

Professor Thouin has enumerated about fifty methods of grafting, but they all depend upon the same principles as already explained.

Bud Grafting, or Budding.—Instead of a slip, or scion, the bud of one plant may be so inserted into the bark of another as to grow, and produce branches, flowers, and fruit. It is requisite for this purpose that a leaf bud, known by its tapering sharp point, be selected, and not a flower-bud, known by its bulging and rather blunt point. It is necessary that the leaf connected with a bud be cut off, otherwise it would soon exhaust the sap, and the bud would wither and die. It is also necessary that the bark separate freely, which is the test for there being pulp enough to form a joining. When the bud is inserted, it must be tied round with a ribbon of grass, to exclude the air. Fine rose standards are thus formed.

Herb Grafting.—Though grafting is usually confined to trees, De Candolle thinks all plants may perhaps be capable of being so treated, and Baron de Tschoudy has in this way succeeded even with annual plants, as well as with the soft young shoots of trees; but it is necessary to success to have it performed near to or at the inner base of a living leaf, which serves to attract the sap.

In the case of plants with succulent leaves, it has been asserted on authority, that "the union is imperfect," from the adhesion being "by the cellular substance" only, "no woody matter" being transmitted to the stock. That this is quite erroneous is shown by the striking instance of a Cactus truncatus grafted on a Cactus triangularis in the king's garden at Neuilly, as beautifully dissected and drawn by M. Turpin. This also equally disproves the common opinion that the graft in such cases is merely kept alive by the moisture supplied by the stock, and would do as well if stuck into a pototo or a piece of moist sponge. It certainly furnishes a strong disproof of the baseless theory that maintains buds and grafts to send down woody matter to the stock, as roots descend into the soil.

Scientific Principles of Thinning and Weeding.—It must be obvious, from the facts previously detailed, respecting the food of plants and its preparation in the leaves, that if they are crowded closely together, their roots must go the same spot to procure nourishment, which they will constantly soon exhaust, and become therefore more or less starved, while the branches and leaves, by mutually interfering, must prevent therein the free circulation of air, and, by oversha-

dowing the ground, must also prevent therein the free circulation of water. I was particularly struck with the illustration of these views, on passing last autumn through the hemp fields in Baden, and in Switzerland, the plants which were crowded together being tall, slender, and without branches, intended for the manufacture of linen: while those intended for seed, which were scattered about on headlands and in corners, and never two together, were robust, and loaded with numerous branches of considerable extent, like little standard trees.

It will appear from this illustration, that plants must be sown and kept crowded or apart, according to the object aimed at in their cultivation; crowded when it is required to make them slender, like the linen hemp; and far apart, like the seed hemp, when it is required to have them large, bushy, and strong,

Seeds have sometimes to be sown thickly, in the case of early crops that the plants may afford mutual protection, but when they have acquired a little strength, they may be safely thinned out, so as to allow more room for those which remain. If the plants, however, are either not very vigorous, or very tall and slender, as is always the case with crowded forest trees, the thinning must be gradual, otherwise too hasty exposure to the weather may prove injurious.

Weeding is an operation much more necessary than thinning, as weeds which spring up unbidden are useless for garden purposes, though they may be interesting to the botanist. It is often impossible to guard against the introduction of those weeds which have seeds that float in the air, such as groundsel, thistles, and dandelion, but all which have not floating seeds may be got rid of in a few years by grubbing up the young plants before they form seed. Weeds with runners or with creeping roots are difficult to extirpate, in consequence of the smallest portion of them left in the soil readily striking and forming new plants.

Scientific Principles of Pruning.—There are few operations of gardening that require to have the facts respecting the food and circulation of the juices in plants studied more carefully than pruning; none in which practice is often so much at direct variance with the principles of science. Pruning is performed with various designs; sometimes for modifying the form and size of a tree, and sometimes for modifying the production of fruit in quantity and quality.

The chief circumstances to be borne in mind with respect to pruning for the purposes of influencing shape or size, are that the head branches will always be in proportion to the roots and the food with which they are furnished. It will therefore be obviously preposterous to dream of checking the luxuriance of a tree by cutting out its branches in autumn or winter; for no sooner does the sap begin to flow in spring, than fresh branches will arise from the strongest branch buds below where the pruning was made, and the same quantity of sap being furnished, the tree will very soon be as luxuriant as before the operation. Frequently it will be more so, for the pulp laid up in the roots the preceding autumn will be more apt to cause new root fibres than in an unpruned tree. So true is this, that weak and old trees are often headed down to render them luxuriant; though the same gardeners will also extensively lop luxuriant trees in the winter, with the hope (certain to be frustrated) of checking their growth.

The true principle of dwarfing a tree, when space cannot be afforded it for expanding, is to dig a trench down to the roots, and prune them shorter; or to bend down the branches, as we shall see under training.

Summer pruning, however, has a different effect, and when young shoots and suckers are thinned off in summer, they prevent a tree from exhausting itself.

With respect to the modifications of fruit-bearing, Mr. Hayward has well remarked that "whether the supply of food be great or small, the fluids taken up must flow or spread over a proportionate surface of trunk, branches, and leaves, and be duly exposed to the action of light heat, and air, before a tree can attain a perfect fructiferous state.

"All trees are furnished with many more buds than they can sustain to form fruit and branches, the position of the buds determining their office; and those formed for wood buds, occupy the most eligible situations for extending the branches; the others form fruit buds, or lie dormant until wanted to supply the casual loss of any wood buds above them.

"In all erect growing trees placed in an open situation, and where the light falls equally, the flow of sap is vertical, and the strongest or leading branches will form in this until the stem or trunk acquires a certain age or elevation, which is determined by the soil, situation and nature of the tree; but in places where the light is obstructed on any side, the flow of sap inclines towards the light.

"If a bud formed and placed for a leading branch be removed, or the vessels connected with it are contracted and injured, and the usual passage of the sap obstructed, the wood bud occupying the next best position will take its supply and perform its office; and when, from any number of wood buds, formed to receive a quantity of sap, a part be taken away, the share of sap which that part would otherwise have received, is given to those remaining, and they are extended proportionally."

It would not be easy, I think, to give a more clear and succinct account of the leading principles of pruning, than this from Mr. Hayward, taking along with it what has been said above on thinning, and on light and air. The practice, so far as regards particular species and the seasons best adapted for the operation, will come to be treated of in detail when I take up Fruit Gardening.

Cultivation of the Strawberry, with some account of several of the most esteemed varieties.

[FROM THE AMERICAN GARDENER'S MAGAZINE.]

THE strawberry, though so generally cultivated, is, however, not often seen growing in its greatest perfection. Since the introduction of the fine English kinds into our gardens, more attention has been given to this fruit; and their large size, and beautiful appearance, combined with their excellent growth, prolific bearing, and high flavor, has acquired for them a place among other desert fruit, which they so eminently deserve. Previous to the introduction of these kinds, almost the only variety cultivated in this vicinity, was that called the old wood; this is still to be seen in our markets, though not in such abundance as formerly. It is very well, if there is plenty of room in a garden, to have a small bed of the latter, as they often last till the others are all gone. But as regards any other qualification, for ourselves, we would never occupy ground for their cultivation, which could be employed in numerous ways, to a better advantage, and afford much more gratification to the owner. We have not grown this old variety for several years, having been convinced that, as a desert fruit, they were quite inferior, and if grown for the market, not yielding in comparison with the new kinds, a crop which would remunerate for the labor of picking.

There are now a large number of varieties enumerated in the nurserymen's catalogues, many of which are synonymous, and several sorts not worth growing; to make a selection from these, and to include such kinds as combine all the best qualities, is to one unacquainted with them, no easy task; we therefore give a short description of several varieties which we have cultivated, and most of which have been selected by Mr. Thompson, of the London Horticultural Society's garden, as the best, leaving our readers to select from them such as they think the most desirable; they are all excellent, but some superior toothers.

The strawberry is a native of our climate, and is to be found growing in its wild state in the pastures and fields. Mr. Knight considers all the staawberries as varieties of one species; but some botanists have distinguised them as different species.

The varieties were divided into classes, and well described by Mr. Barnet, of the Caledonian Horticultural Society of Scotland, in the *Hort. Trans.* vol. vi.; but many more kinds have since been added, and among them some of the most esteemed.

Class I.—*Scarlet Strawberries.*

Old Scarlet.—Early Virginia, early scarlet, scarlet, and Morissiana scarlet, of our gardens: carlate de Virginie, of the French. This is a very excellent high flavoured strawberry: it is the earliest of all the varieties, though rather a shy bearer; the fruit is middle sized, rather globular, of a very light scarlet colour; seeds deeply embeded, flesh pale. We have grown this kind and no garden should be without it; it is perfectly hardy, and stands the winter without any protection. It is full ten days earlier than any other kind.

Grove and Scarlet, Atkinson's Scarlet, and Wilmot's early scarlet, of the catalogues. Fruit round, hemispherical, brilliant scarlet, flesh pale, and good flavour. This variety is stated as a "first rate strawberry in some works we have seeu. We have cultivated it for two or three years, but have never produced any thing very superior. It is a good bearer and a fine fruit of fine flavour, but not very large in size; we do not think it equal to the following.

Royal Scarlet.—This name we do not find in the English works, or in the catalogues of nurserymen, except the Messrs. Prince of Long Island. What its true name is we are not aware; we first received it from Mr. Haggerston, when he carried on the vineyard at Charlestown, under the above title. The fruit is of large size, roundish, and of a bright scarlet colour; seeds slightly embedded; flavour rich; flesh pale scarlet; ripens next to the early Virginia. The foliage is strong, and the fruit on rather long footstalks; stands the winter well without protection. This variety may be the American scarlet, as described by Mr. Thompson, in Loudon's Encyclopædia of Gardening, new edition.

Methven Scarlet, Methven castle, (and Methuen scarlet as often mispelt in some publications where it has been noticed.) This strawberry, though not highly prized in England, is in our climate a very valuable kind, and deserving of cultivation in every garden, where a good collection is wanted. It is a very hardy variety, and stands our winters, generally, without the least protection. It is also an abundant bearer. The fruit is very large, round, often coxcomb shaped, especially the first berries, and of a bright scarlet; flesh pale scarlet, not very firm; flavour good, but not so rich as the previous named ones; its size and productiveness is, perhaps, its greatest recommendation; yet it makes a fine appearance, is easily grown, and being much better than some kinds, we esteem it a desirable variety. We have grown it, measuring over six inches in circumference, and weighing upwards of half an ounce. The other fine scarlets are the Roseberry, black Rose

berry, Garnestone scarlet, and Coul late scarlet. We have not cultivate either of these.

CLASS II.—*Black Strawberries.*

The flavour of all this class is very rich, and highly perfumed.

Downton, Knight's seeding of some catalogues. The fruit and largest berries often assuming a coxcomb shape; the flesh is firm, with a rich, juicy, and high flavour; a good bearer, and ripens late. This is a much esteemed sort, and when grown to perfection, one of the largest and very best. The finest specimens we have ever seen, were cultivated in the garden of the Hon. E. Vose, of Dorchester, who informed us that he had not failed of having a good crop every season;

Elton Seedling.—This variety was lately raised by Mr. Knight. The fruit is large, ovate, not filled out at the end of the berry, often coxcomb shaped, and of a shining dark red; flesh a fine red, firm, juicy, with a sharp, rich, agreeable flavour; it ripens the latest of all the strawberries we have ever cultivated; and the fruit must be allowed to remain on the vines, till it becomes very dark coloured, or it is very inferior from its acidity. The fruit grows on long foot stalks, which often appear above the foliage; it will be extensively cultivated when it becomes known.

CLASS III.—*Pine Strawberries.*

Keen's Seedling, Keen's black pine, Keen's new pine, of English catalogues. Fruit very large, round or ovate, sometimes of a coxcomb shape in the largest berries, of a dark or shining red next the sun; seeds rather prominent on the surface; flesh scarlet, firm, with a rich and high flavoured juice; a most abundant bearer, ripening about the middle season of strawberries. It possesses all the good qualities of this fruit; but the vines are tender, and easily winter killed, and should always be protected during frost; although it is, or has been, extensively cultivated, yet we have never seen but a very few good specimens. It was first introduced to this country by Mr. Haggerston, about 7 years since, and has subsequently found its way into most all our gardens. We have read in the English Magazine, accounts of exhibitions where this kind was presented, of such large size, that it took only *fourteen* to weigh a pound. The largest we have ever seen here, it would have required at least thirty to the pound. It is a most excellent strawberry for forcing; it does not succeed well in rich light soil, but seems to prefer a stiff rich loam. We have never succeeded in growing it to our satisfaction.

Mulberry, Pine, Cherokee, King and Mahone, of some collections; fruit of medium size, ovate, conical, with a short neck, of a dark dull red; flesh red, juicy, and of an agreeable sub-acid flavour; a most abundant bearer. This is another strawberry of which we do not find any account in the English works; it is extensively cultivated around Boston for the market, for which purpose it is a fine kind. It is perfectly hardy, more so than perhaps any other; it ripens about the time, or just after the Royal scarlet. It is said to be a native of New-York; and was first grown in this vicinity in the garden of the late Gov. Gore, who received it from Mr. King of New-York.

Southborough Seedling: fruit large, ovate, conical, of a deep shining red colour: flesh firm, juicy, with an agreeable flavour; this a fine strawberry, but not an abundant bearer. The foilage is strong and vigorous, and fruit on long footstalks. We would recommend it for its size, fine shape, and good flavour indeed, we did not know a strawberry which has a richer appearance on the table.

CLASS IV.—*Chile Strawberry.*

Wilmot's Superb: fruit very large, round or rather ovate shaped

sometimes compressed, of a pale, shining scarlet colour; seeds prominent; flesh pale red, with a woody centre; flavour good, but not rich; except in its size, we would recommend any of the others we have described.

CLASS V.—*Hautbois, (Fragaria elatior.)*

Prolific or conical Hautbois; double bearing, Hudson's Bay, and Musk, of some catalogues; fruit medium size, ovate, conical, of a very dark dull red, inclining to a purple on the sunny side; flesh greenish, firm, not very juicy, but of a highly perfumed flavour. This variety is an abundant bearer; we think the Hautbois strawberry the finest of the whole; they are not, it is true, so large as the pines or scarlet, but have a character peculiarly their own. In this class, there are what are called sterile and fertile plants the former have long stamen, and should invariably be destroyed, as they produce no fruit. The variety is, however, much more free frem making such runners than the others.

Class VI. includes the *Fragaria viridis* of botanists, the green strawberry as generally known. These varieties are but little known in our gardens.

CLASS VII.—*Alpine and Wood Strawberries.*

These are the red Alpine, white Alpine, red Wood, and white Wood: the red or monthly, in some situations favourable, bears from June to to October. The flavour is rich, berries large for this class, but small, compared with the other classes. The red and white Wood are too well known to need any description.

Strawberries are cultivated from seed, by runners, and by division of the root; from the former to get new kinds, and the two latter to increase the stock; the bush Alpine can only be increased by division of the root. Strawberries should be grown in an an open situation, exposed to the sun, and not shaded by trees; in the former site they grow strong and bear well; in the latter they run up weak, and produce but little fruit.

Strawberries are cultivated in beds, rows, or in hills; some adopt one, and some the other method, and each have their advocates; we prefer, however, their cultivation in beds. Some writers recommend planting in the fall, and others in the spring; and each have had such good success, as appears from their statements, that it seems immaterial which. We have tried both ways ourselves, but rather prefer fall planting to the spring, provided it is done previous to, or early in September; later than that, we would defer till April.

The soil we would recommend for strawberries is a rich, deep loam; this, particularly for *pines* and *scarlets*, we are confident will grow them better than any other; the woods and hautbois prefer a lighter one. The distance at which the former should be set, is recommended at 24 inches from row to row, and 18 inches apart in the rows; we have never adopted this plan, thinking it to be a waste of land; but from repeated trials, we are now convinced that like many other of the errors which have crept into our system of gardening, especially the prevalent notion of crowding plants together, it is a mistaken idea; planted so near together, they soon form one mass of foliage, and the runners rooting so close, the main roots have no chance of receiving any nourishment; the sun cannot penetrate into the soil through the leaves, nor the air have any effect upon the plants; the consequence is, that the vines are weak, the fruit late in ripening, of very small size, without colour, and almost tasteless. It may be said, that the runners can be cut off, and thus prevent such confusion; but we say that there is not then sufficient room to hoe and dig between the plants, to gather the fruit without injuring the vines, or to afford sufficient food for the roots. It is only from the established and invariable rule among the English

gardeners, of setting their plants at greater distances than we do, that they are enabled to raise fruit that will weigh over an ounce each.

About the middle of August, let the piece of ground, where it is intended to set the strawberries, be prepared as follows: let every thing be cleared from the spot, and the whole raked even; if it is very rich it will not need much manure; but if ordinary garden soil, it should have about 3 inches of half decomposed cow or horse manue added; the soil should be 18 inches or 2 feet deep, on a good subsoil. After the manure is spread, the piece should be trenched to the whole depth, beginning at one end and finishing at the other. If, however, the bottom soil is of a very inferior quality, it will be best to put the middle spit at the top, and the lower in the middle. The whole should be left to settle a few days, or until about the 1st September; it should then have added about 2 inches of well rotted manure, spread on the ground, and dug in lightly with the spade; it will then be ready for planting. The beds should be marked out, and the distances of the plants. We recommend the following dimensions, but they can be varied at the option of the cultivator. The beds should contain 3 rows, and should be 6 feet in width, and the alleys between each, 3 feet; the first row should be set one foot from the edge of the bed, the next 2 feet from that, and the other corresponding with the first; the plants to be 18 inches apart in the rows. Select good strong plants from the nursery beds, with bold buds; choosing the first runners, nearest the old plant, rather than those at a distance; if they are well transplanted, they will need no farther care except watering, hoeing, and weeding, until cold weather.

Upon the approach of frost, if the Keen's, they should have a little straw, leaves, or old haulm, strewed over them, if this is done to any of the kinds the *fisrt* season, they will be benefited by it. It is not, as every reader is probably aware, the extreme cold that does the damage, but the freezing and thawing, which is continually going on in the months of February and March; the great heat of our scorching sun, causing the surface of the ground to thaw, and at night freezing up again, oftentimes throwing the roots completely out of the ground.

The first warm day in April, the beds should be uncovered, as the plants are liable to damp if it remains on; the weeds should be kept clear from the plants, and as soon the fruit is set, a little loose straw should be placed between the rows for the trusses of fruit to lie upon, and protect them from the dirt. The runners should be cut off two or three times during the season. When the crop is gathered, the same care should be taken, and all the weeds hoed up, and the runners cut; strawberry beds are often ruined by ten or twelve days' neglect. The produce is very good the first season; the second it is the greatest, and the third moderate; the fall of the third they should be destroyed, and new ones made. During spring, before the bloom, and also after the fruit is set, the vines should have frequnet and copious waterings. In England, where the soil is almost moist, and where there is not as Cobbett says, sun enough to kill a weed when hoed up, they give their strawberry beds large quantities of water. What should we do in our climate, where, with the exception of one or two showers, although they fall with force enough to dash the fruit completely into the ground, leave the soil as dry in a day or two as ever? It should not escape the mind of the strawberry grower, to give plenty of water.

This is the method we have practised, with the exception of the distances we have recommended, and one or two other particulars; if it is followed, a good crop may be relied upon. The Hautbois and the Wood varieties, need not be set at so great distances, but judgment must guide in this, as well as other things.—*Conds.*

PART III.

MISCELLANEOUS INTELLIGENCE.

Public Spirit of Indianapolis.—About $200 have already been subscribed by the merchants and mechanics of Indianapolis, Indiana, to be distributed in premiums at the Agricultural Fair of the Fall of 1836.

Why cannot the Merchants of Charleston do something of the kind? Surely, every encouragement they may extend to agriculture will ultimately benefit commerce, and themselves, as its regulators. Let them come forward. Let them show their willingness, not only to become the vendors of our produce, but the encouragers of our agricultural interests also.—*Editor.*

Worth trying.—In an English miscellany we find the following:—The danger of being suffocated by smoke, to which persons are exposed who enter premises on fire, may be effectually obviated by tying a wet silk handkerchief single over the face. A gentleman who lately tried the experiment, was enabled to remain in a room which was on fire, in the most dense smoke, and work a small engine until he succeeded in extinguishing the flames.

Economy in Fuel.—There is a prodigious waste of coal, occasioned by the width of the opening in the grates, by which a large portion of the heat escapes up the chimney. The best remedy is a register so contrived as to diminish the draft after the fire is ignited. A simple bar of iron will answer the purpose of diminishing the aperture, and any one who will take the trouble of trying the experiment, will be astonished at the additional heat thrown into the room by one of extraordinary thickness. A bar of iron that will cost twenty-five cents, will produce twenty-per cent. more heat.—*Boston Traveller.*

Egypt supplied with Ice.—The Pacha of Egypt has contracted to be supplied with ice from Boston. The government of Malta has also a similar contract; the ice to be furnished at 4 cents a pound.—*Gen. Far.*

Barley Crop.—The barley crop of the town of Pompey, N. Y. is estimated to have yielded the farmers of that town, this season, more than $60,000.

Pork.—The price of Pork will range this season in the state of Ohio generally, as far as we are able to learn, from $4, $4½ to $5 per one hundred pounds.—*Ohio Farmer.*

Tobacco in Russia.—The Agricultural Society of Moscow has awarded gold and silver medals, as premiums of encouragement for the culture of American Tobacco, which has perfectly succeeded in Russia.

Axes.—Died, in Williamsburgh, on Thursday last, Mr. Josiah Hannum, aged about 65 years. Mr. H. was one of the best axe makers in the country. He it was who first established the manufacture of axes as a separate business from smithing in general. He was, however, soon followed up in that branch of successful industry, by Messrs. Hydes & Starks; and these three families were honorable rivals for years, in bringing to perfection the manufacture of the axe.—The town of Williamsburgh may be proud of being the very first town in all the United States to rival John Bull and drive him out of the market in the manufacture of any article whatever. But the axe,—the little Williamsburgh axe,—has opened the dark forests of Canada to the influence of the sun, in spite of the Birmingham Smitheries, who forced into the Canadas and the United States, an awkward left-handed thing called an axe, which a Yankee would value but as a chip in comparison with the Williamsburgh axe.—*Hamp. Rep.*

India Rubbber Maps.—A Mr. Goodyear of New-Haven, manufactures maps of India Rubber. One of these—a map of the world—was recently exhibited at the Fair, and was so constructed that it could be instantly *blown up* into a *globe*, in the same manner as the man, mentioned in the preface to Don Quixotte, blew up a dog.

To what marvellous uses will India Rubber be brought at last? It is now used for almost all sorts of common purposes. It is worn in the shape of coats, shoes and suspenders. It is slept upon in the shape of pillows. It is eaten in the shape of bread, (vide Welch's manufacture,) and it may be drank in the room of brandy or wine, by dissolving it in spirits of turpentine. "Sweet are the uses of adversity," but sweeter are those of India Rubber.—*N. Y. Transcript.*

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The White Jessamine.—We are told that before its arrival in France, the jessamine sojourned in Italy; a Duke of Tuscany was its first possessor: tormented by envy this duke wished to enjoy alone so charming a possession, and forbade his gardener to give away a single stalk, a single flower. The gardener would have been faithful had he never known love; but he prepared a bouquet for the birth-day of his mistress, and to make it still more precious, added a branch of jessamine. The young girl, to preserve the freshness of this foreign flower, put it in the ground; the branch remained green all the year, and the following spring was covered with flowers; she profited by the instructions of her lover, and cultivated her jessamine, which multiplied itself under her tender care. She was poor, her lover was not rich, a prudent mother refused to unite their poverty: but love had worked a miracle for them, and the girl profitted by it; she sold her jessamines, and sold them so well, that she amassed a little treasure, with which she enriched her lover. The girls of Tuscany, to preserve the remembrance of this adventure, always wear a bouquet of jessamine on their marriage day; and they have a saying, that a girl, worthy to wear this boquet, is rich enough to make the fortune of her husband.—*Letters from Brussels.*

This little story though simple, teaches us a wholesome lesson. Our people should imitate the example of the Tuscans, and hold in lasting remembrance the discover or introducer of any thing new in Botany or Agriculture. A lady introduced rice into Carolina, previous to which time, the whole province was sold to the king for £22,000. The income of many of our rice planters is twice now the amount.—*Editor.*

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Daily increase of Population in the United States.—The increase of population in the United States is one thousand souls every day.

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Rice Family Bread.—The following letter from a Lady, will teach the housewives of our country how to add to the comforts of home:—"I have been trying experiments with rice flour, and I have produced a bread that is unrivalled, far superior to the receipts you have. Since I got it perfect, I have sent some samples to every one I could think of. It is the best bread I ever tasted, and I dont think it more expensive than wheat bread, for the rice flour goes so much farther than the same weight of flour. I make it thus—one quart of rice flour made into a stiff pap by wetting it with warm water, not so hot as to make it lump; when well wet add boiling water, as much as two or three quarts; stir it continually until it boils; then add one pint of milk; when cool enough to avoid scalding the yeast, add half a pint of good yeast, and as much wheat flour as will make it of a proper consistency for bread; put it to raise; when sufficiently risen, it will be necessary to add a little more wheat flour. If baked too soft, the loaves will be hollow. The first I baked were mere shells. If you can abbreviate the receipt for use, you may; but if you do not give all this information, people will not succeed in making it good. The same mixture, rather thinner, baked in muffin rings, makes the best muffins I ever tasted. I forgot to say the bread must stand half an hour or more in a warm place, after it is put in the baking pans, and it will rise again almost as much as it did at first."

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A sure Cure for Corns.—Cincinnatt, Oct. 13, 1835.—Having been troubled a number of years with corns on my toes, I have, of course, been induced to try every thing of which I could hear in the way of an effectual remedy, and have as often been disappointed in my attempts to cure. A short time since, a friend advised me to apply *Diacalon*, and guaranteed at the same time that I would find immediate relief. I applied on a small piece of linen cloth a small portion, and have since found no inconvenience from corns whatever.—*Cin. Whig & Intel.*

South-Carolina Canal and Rail-Road Company.

We have read with much interest the Report for the year 1835, of the *South-Carolina Canal and Rail-Road Company*. By a reference to to the Statement which we herein extract, it will be perceived that this noble enterprise of our State, has eminently succeeded, and is every day bringing a handsome remuneration to its Stockholders and Supporters. We invite the attention of our readers to the subjoined exhibit of the fiscal concerns of the Company. EDITOR.

STATEMENT of the Number of Passengers conveyed upon the Rail Road, the number of Bales of Cotton brought down upon it, with the amount received from Freight and Passage from July 1st to December 31st, 1835.

	PASSAGE.								FREIGHT.									
	UP.			DOWN.			UP AND DOWN.		UP.		DOWN.		UP & DOWN		TOTAL AMT.	
	No. Pass.	Amount Pass.		No. Pass.	Amount Pass.		No. Pass.	Amount Pass.		Amount Freight.		Amount Freight.		Amount Freight.		Freight & Pass.	
JULY,	850	2,435	40	1,680	5,528	10	2,530	7,963	50	3,273	91	1,264	11	4,538	02	12,501	52
AUGUST,	673	2,188	63	1,345	4,136	89	2,018	6,325	52	5,976	75	500	32	6,477	07	12,802	59
SEPTEMBER,	991	4,632	61	905	2,600	41	1,896	7,233	02	10,836	55	1,175	39	12,001	94	19,234	96
OCTOBER,	1,368	6,324	48	1,644	5,387	97	3,012	11,712	45	15,212	16	9,537	65	24,749	81	36,462	26
NOVEMBER,	1,351	4,975	17	1,579	4,973	36	2,930	9,948	53	11,363	61	10,907	68	22,271	29	32,219	82
DECEMBER,	1,769	5,676	29	1,804	4,960	35	3,573	10,636	64	7,030	92	6,530	24	13,561	16	24,197	80
TOTAL,	7,002	26,232	58	8,957	27,587	08	15,959	53,819	66	53,683	90	29,915	39	83,599	29	137,418	95
Monthly Average,	1,167	4,372	10	1,493	4,597	84	2,660	8,969	94	8,947	32	4,985	89	13,933	21	22,903	15

Number of BALES OF COTTON *received in Charleston from the different Stations on the Rail Road, from July 1st to Dec. 31, 1835.*

	Departures.	Arrivals.	Total.	Hamburg.	Aiken	Blackville.	Midway.	Bat'chville	Way	Total
JULY,	41	43	84	1,327		1	4	4	1	1337
AUGUST,	46	40	86	346						347
SEPTEMBER,	50	45	95	68	1	11	211	129		1094
OCTOBER,	62	62	124	4,735	65	309	658	454	21	6847
NOVEMBER,	59	60	119	4,090	576	435	347	445	87	5980
DECEMBER,	56	63	119	3,960	550	410	305	296	85	5626
Total,	314	313	627	15,156	1862	1166	1525	1328	194	21231
Monthly Average,	52	52	104	2,526	310	194	254	221	33	3538

HENRY RAVENEL,
Sec'ry & Treas'er So. Ca. & R.R. Company.

Charleston, Jan. 11, 1836.

Dr. **SOUTH-CAROLINA CANAL & RAIL-ROAD COMPANY.** **Cr.**

1835				1835			
Dec. 31	To Bonds payable for House in Hudson-street, -	$ 3,000 00		*Dec.* 31	By Cash on hand this day, - - - - - -	$ 33,916	75
	To Bills, payable for acceptance of Baldwin's Draft, -	3,200 00			By amount due by I. C. Wightman, - -	$,203 00	
	To amount of Loans due to individuals, - - -	17,450 00			By amount due by Post-Office Department, -	6,666 66	
	To amount due to Fulton Bank, New-York, - - -	17 24			By E. K. Dodd, - - - - - - - -	39 55	
	To Custom-House Bonds, - - - - - - -	2,240 50			By John King, Chief Agent, - - -	15,194 08	22,103 27
	To William C. Molyneau, Liverpool, - - - -	10,385 57					
	To Phelps, Dodge & Co., New-York, - - - -	1,085 50					
	To amount of Salaries due this day, - - - -	2,424 29					
	To Balance, - - - - - - - - - -	15,654 92					
		$ 56,020 02				$ 56,020	02
	To amount due for Negro wages not yet paid, - - -	9,700 00			By Balance, - - - - - - - - - -	$ 15,654	92
	To amount of Bills passed by the Board not yet paid, -	5,896 31			By Balance still due on the 3,000 Additional Shares, -	2,560	00
	To amount of Bills due but not yet passed or paid, - -	13,000 00			By Amount due on sales of Lots at Aiken, - - -	2,450	87
	To interest due to individuals,- - - - - -	861 00			By Amount due by John Clarkin, for Lot near the Lines,	500	00
	To wages due sundry persons at the Depository, - -	315 00			By Balance, - - - - - - - - - -	56,398	52
	To amount appropriated for Dividend, to be declared 11th Jan. next, say 4 per cent. on 11,948 Shares, - -	47,792 00					
		$ 77,564 31				$ 77,564	31
	To Balance, - - - - - - - - - -	$ 56,398 52			Amount of Debts on 30th June, 1835, - -	$161,899 92	
	To amount of Loan due to the State, - -	$100,000 00			Amount of Debts on 21st Dec. 1835, - -	174,622 11	
	To Interest due thereon to 31st December, 1837,	18,223 59	118223 59		INCREASE, -	$,12,722 19	
		$ 174622 11			Amt. of Embankment pd. from 1st July,	$9,375,68	
	Claim of West Point Foundary Association not admitted, - -	$7,585 74			Amt. expended on the Edisto Swamp,	4,082,00	
					Amt. expended on altering the Plane,	3,240,72	
						$17,698,40	

Current Expenses estimated at - - - -	$93,838	47.	Income from 30th June to 31st December, 1835, - - $141,630 47
Dividend, $4 on 11,948 Shares, - - - -	47,792	00	
	$141,630	47	

Charleston, 11th January, 1836.

JOHN RAVENEL, *President.*